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ORIGINAL COMMUNICATIONS.

Surgical Cases. By J. M. STEINER, M. D., Assistant Surgeon
U. S. Army. (Communicated in a letter to one of the
Editors.)

Three or four days after the battle of Cerro Gordo, I volunteered my services to the Surgeon General to return to Plan del Rio, whither the most of our wounded had been conveyed after the action. Among others placed under my charge by the Senior Medical Officer, Dr. Cuyler, was an Illinois volunteer by the name of Todd, with the worst looking wound I have ever beheld.

This man was struck by a cannon ball, which carried away the left half of the inferior maxillary bone, stripping the soft parts from the superior maxillary as high up as the malar bone, tearing away the soft parts from the left side of the neck to within an inch and a half of the clavicle, laying bare the transverse processes of the second and third cervical vertebræ, and exposing the external carotid with the most of its branches. The wound, when I first saw it, was in a miserable condition, covered with fragments of the lacerated tissues, already gangrenous, and pouring forth an ill-conditioned sanies, the smell of which was intolerable. The constitutional symptoms corresponded with the condition of the wound. The pulse was small and corded, and exceedingly fre-

quent, the tongue furred and dry, the skin hot, and harsh to the touch, and the bowels torpid. I dissected away the partially loosened sloughs which covered the wound, and applied an emollient poultice. For the relief of the constitutional disturbance a draught of salts was given, which having acted briskly upon the bowels, abated the fever, and the patient expressed himself much relieved. On the following day the appearance of the wound was much improved, the pus assumed a more healthy character, and the man's spirits began to revive. The third day after my arrival he was conducted on a litter to the general hospital at Jalapa, where I continued in charge of him, at the special request of Dr. Hill, then in charge of the volunteer division of the hospital. The treatment at Jalapa consisted exclusively in the application of the olive oil dressing, with proper attention to the regulation of the bowels, and the mild exhibition of opiates at night. Under this course he improved daily, the wound commenced granulating, and by the first of June he had nearly recovered, a small fistulous orifice communicating with the mouth alone remaining unclosed. As a different arrangement was made at this time by the Senior Surgeon in the assignment of the wards, Todd fell into the hands of another surgeon, and I saw no more of him for some time. At the end of two weeks, I think on the 15th of June, I was placed in charge of the sick and wounded, who were, by the order of the General-in-Chief, to remain at Jalapa, as they were deemed too unwell to be removed to Perote, where all, whose lives would not be manifestly endangered by the transportation, were being carried. To my surprise I found Todd among the number left under my charge. Upon an examination of his wound, I found it in a worse condition than when I first saw him at Plan del Rio. The neck was enormously swollen, the whole of the newly formed granulations in a sloughing condition, and a dirty, ill-conditioned pus running abundantly from the wound. The constitutional symptoms were similar to those at Plan del Rio. I applied to the wound a large emollient poultice, and administered 10 grs. of blue mass, followed in a few hours by a draught of the sulphate of magnesia. The next morning I thought it desirable to repeat the poultice, with the view of cleansing the wound and lessening the inflammation.

On the afternoon of the same day,—the 17th—I was hastily informed by the steward, while at my quarters, about 100 yards

distant from the hospital, that Todd was bleeding to death. Upon arriving in the ward a few moments after, I found the poor fellow bathed in blood. Stripping the poultice from his neck, I tore away with my hand the gangrenous flesh which concealed the artery, when I was blinded by the gush of blood from the external carotid, which was the vessel ruptured. Pressing the right hand with all my force below the part ruptured, I succeeded in arresting the hemorrhage. The poor fellow was so much exhausted that I was obliged to turn him almost upon his head, in order that his brain might have the benefit of what little blood yet remained in his body.

Having with care substituted the strong hand of an attendant in lieu of my own, in controlling the hemorrhage, I made an incision from the left sterno-clavicular articulation, extending obliquely upwards and backwards two inches in length, with a view of ligating the carotid artery. The neck was so enormously enlarged, and the tissues so much altered, that I encountered more difficulty in effecting my object than I expected. I encountered the vessel, however, and having carefully separated it from the vein and nerve, succeeded without trouble in ligating it. Upon measurement, I found the depth of the incision an inch and three-quarters. For two days he was kept regularly on wine, and boiled milk and toast. Two days after, all the sick were removed to Perote. The few days I was at this place Todd rapidly improved. I left Perote ten days after the performance of the operation, for the city of Puebla, but have learned since, through several sources, that the man is entirely well, and only waiting an opportunity to leave for home.

The other case fell under my notice at the battle of Chapultepec. The man's name was Hall, and belonged to Company K, 14th Regiment of Infantry. He was struck by a round shot just below the trochanter major of the left thigh, which tore the bone and soft parts into fragments for some inches below. The upper portion of the femur was longitudinally fractured as far as the joint. Having consulted with Dr. Hagan, of the 14th Infantry, with regard to what should be done, we both concluded that the only chance of life, which the poor fellow had, depended upon his thigh being taken off at the hip joint. Having stimulated him sufficiently by the administration of brandy to stand the shock of

the operation; I had him placed upon a long low table, which, fortunately for my purpose, I found in the building Molino del Rey, near at hand. I made use of four assistants. Two were so placed as to restrain the motions of the arms, one seated upon the ground, with his back to the table, held quiet the right lower extremity; while another stood to my right, for the purpose of compressing the flap as it was cut. Dr. Hagan took charge of the injured extremity, and was of much use to me in the operation. The man had a very large thigh, and I was obliged to operate with a knife but six inches in the blade. I overcame this difficulty, however, as you will presently see, by a very simple manœuvre. Commencing about midway between the anterior superior spinous process of the ilium and the trochanter major, I thrust the knife inwards and slightly downwards across the anterior surface of the neck of the femur the full length of the blade, when, by depressing the handle, at the same time slightly withdrawing the blade, I enlarged the point of entrance to the extent of two inches, which admitted with facility a portion of the handle of the catlin, enabling me, by making slight pressure upon the inner portion of the thigh, to transfix it, when, by depressing the extremity of the blade, and elevating the handle, I enlarged the point of exit until it equalled in size that of entrance. My attendant then inserted the two front fingers of both hands into each orifice of the incision, overlapping the thumbs above, and, by compression, so narrowed the width of the flap that I was enabled to cut it with my short knife without difficulty, while the same manœuvre answered in controlling the hemorrhage. The anterior flap having been retracted by the assistant, I drew the edge of the catlin across the anterior surface of the capsular ligament, when, by grasping with my left hand the extremity of the fractured bone, and forcibly pressing it downwards, I succeeded in rupturing the ligamentum teres, and the head of the bone started from the socket. Placing the blade of the catlin between the socket and the inferior surface of the neck of the bone, which, with the aid of my left hand, I gently rotated inwards, so as to avoid the trochanter major, I cut the lower flap. The operation did not occupy me more than twenty-five seconds. The loss of blood was inconsiderable, yet the prostration that ensued was excessive. The arteries were all ligated, the wound dressed, and reaction brought about by the

administration of brandy and ammonia. I should like to have stayed by this man and nursed him myself; for I really believe, could I have done so, he would now be alive; but my duties called me elsewhere, numbers of wounded were suffering for the want of medical assistance, and I was obliged to leave Hall in other hands. He survived only until evening.

Cerebro-Spinal Meningitis occurring during the prevalence of Epidemic Catarrhal Fever. By R. L. SCRUGGS, M. D.

Previously to saying anything about the cerebro-spinal affection, I will endeavor to give a brief account of the epidemic catarrhal fever which made its appearance here last fall, while a few cases of the epidemic typhoid fever yet lingered; following close upon the heels of the latter epidemic. Although this epidemic, resembles in its general features the same disease described by various authors, as occurring at different and distant periods, yet it may present some features peculiar and characteristic. Whether this be true or not, it will not, I presume, be uninteresting to notice something of its history, phenomena, complications, &c., and ascertain, if we can, its connections with other morbid conditions of the body, and possibly prove their identity; or show that affections hitherto treated of as separate and distinct diseases, if not the same, are produced by the same remote cause. I think that a fair opportunity of observing one epidemic, and a careful study of all its phases, should go far to convince any one that many cases, apparently dissimilar, from the descriptions given of them, are the same disease, or at least produced by the same morbid agency—modified only by the circumstances attending each epidemic—as climate, season, locality, &c., or each particular case, as constitution, idiosyncrasy, &c. Thus we may have the morbid agent small in quantity, spending its force upon the bronchial or Schneiderian mucous membranes, constituting slight catarrh or bronchitis, which is its most common form; or it may spend its principal force upon the lungs, less frequently upon the stomach and bowels; or lastly, and worse than all, upon the gray matter in the centre of the spinal cord, “the nervous system of reflex actions,” producing violent spasmodic action; or it may

extend itself to the brain and its coverings, producing intense pain, wild delirium, coma, apoplexy and paralysis.

These and several strange phenomena have presented themselves to me in treating the epidemic that has prevailed here this year, called "influenza, la grippe, spotted fever, cold plague, typhoid pneumonia, cerebro-spinal meningitis, catarrhal and catarrho-rheumatic fever." These names, I think, have been given to the same disease, for all the symptoms attending the above named diseases I have witnessed in this epidemic, except the spotted appearances described by some. Thus I have seen a patient attacked with apparently ordinary cold, as the phrase is; soon soreness of the muscles and intense pain in the joints supervene; great prostration of the vital energies, intense bronchitis, the sputa slightly tinged with blood, and finally death ensuing, apparently from the lungs being filled with tenacious mucous, which the patient is unable to throw up; but before death takes place the same contraction of the muscles of the back is observed as in the other cases. Again, such is the violence of the attack sometimes, that nothing is observed but the cerebro-spinal affection, which often produces death in from six to ten hours.

Manifesting itself in this way it is truly a frightful disease, and such is its protean character, that at times it is extremely difficult, if not impossible, to recognize it. The patient will sometimes complain of intense pain in a circumscribed spot in some part of the body or extremities, as the toe, ankle, wrist, &c., and in these cases it is often death *ab initio*.

The first violent case of this disease that I was called to see was that of a young man, *æt.* 20. He was taken with soreness of the muscles the day before, with wandering pains about the chest, and slight bronchitis. He died before I had time to examine him. His whole body was curved strongly forward, the thighs flexed upon the abdomen, so that the forehead rested upon or between the knees. This case proved fatal in twenty-four hours.

My next case was a young lady, *æt.* 18. The position of her body was exactly the reverse of the first patient; her head and neck were drawn backwards and rigidly fixed, countenance pale and somewhat distorted, respiration slow and gasping, extremities cold, and no pulse at the wrist. This was a formidable array of symptoms, but did not deter me from making an effort to save her,

which it probably would have done, had I known more of the character of the disease. I commenced the treatment by scarifications and cups to the back of the head and neck and along the spine, at the same time using active frictions to the extremities with the most stimulating articles that could be procured. A stimulating enema was then ordered, and hot corn and bricks to be placed under the bed clothing, so that the heat could be conveyed to all parts of the body and limbs. The enema seemed to arouse her considerably, and I directed it to be repeated several times. As soon as she could be made to swallow, I gave her a mercurial cathartic, which operated very well in the usual time. Nothing remarkable in the smell or colour of the passages. Early the next morning I visited her, and found her so much improved that I had considerable hopes of her recovery. Warned, however, of the tendency of the disease to return with increased violence, I introduced, as rapidly as possible, quinine, camphor, and Cayenne pepper; but alas, for my hopes! in two or three hours it was but too perceptible that all my efforts would prove in vain. Her countenance assumed a frightened and beseeching aspect; the muscles of the back commenced contracting; soon she became utterly insensible to all surrounding objects, and died in about three hours—her head nearly touching the lower part of her body,—the spinal column, thus bent backwards, forming almost a complete circle.

The next case was that of a young man, æt. 22. He sent for me about 10 o'clock at night, complaining of intense, excruciating pain in the head. He said it felt as though a pointed instrument was pierced through from one temple to the other. The pulse was normal;—cups to the temples and behind the ears, a stimulating foot bath, a dose of hydr. c. creta and Dover's powders, with a little warm infusion of balm, sufficed to relieve the pain entirely, and he slept comfortably during the remainder of the night. When I called to see him the next morning, I was surprised to find him in the act of mounting his horse. I remonstrated against his going out for a day or two; told him that I thought his disease was the prevailing epidemic, with a decided tendency to the brain and spinal marrow; that a relapse would be severe, and might prove fatal. In spite of my warnings, however, he rode six or eight miles, and was caught out in a heavy fall of

rain; in twenty hours after which, the disease returned with increased violence, and marched steadily and rapidly on to a fatal termination, in spite of lancet, cups, sinapisms, blisters, and every thing else that could be suggested by myself and a consulting physician, whom I called in to my assistance. In this case there was furious delirium towards the last, but none of the muscles were contracted, except those of the eye, which drew the organ around in such a manner as almost to conceal the iris, which, with the wild delirium, gave to the countenance a singularly distorted and fearful aspect.

The next case that I shall notice was that of a negro woman, æt. 20. She was insensible when I first saw her; breathing stertorously; head intensely hot; pulse 130 beats to the minute, and tolerably full. V. S. 3xx.; cups to the temples, behind the ears, and down the spine; hot pediluvia and cold water to the head. This produced some amelioration of the symptoms, and I gave her calomel, nitr. potas. and ipecac. every two hours for four times, with spts. nitr. dulc. and vin. ipecac. between. But the next day, notwithstanding the bowels had been well evacuated, I found the pulse more frequent, the head hot and *drawn backwards*, and, indeed, every symptom unfavourable. The cups to the back of the head and down the spine were again resorted to, with cold water to the head, and general tepid bath, after which blisters to the nape of neck and to the extremities; but nothing seemed to afford relief. The bowels were freely acted upon with calomel and ipecac., followed by infusion of senna when required; and this was continued pro re nata. She died on the third day, her head drawn tightly backwards, inclining a little to one side, and paralysis of the right side.

These four cases will suffice to show, in some degree, the violence and protean character of the disease, although it is not a tithe of what might be written upon the subject. If I am right in regarding all the cases that I have treated as the same disease, modified only by different circumstances in different individuals, then the disease cannot be said to be a fatal one; for the four fatal cases, just described, occurred at long intervals, between each of which I treated a large number of cases, without losing one. But regarding the spinal affection as a distinct disease, and the case is altogether different. Some accounts of the disease say

that five-sixths die. I must candidly confess that I have never seen a case recover; that is, where the spinal affection has been the prominent symptom: nor have I met with a single physician who has been more successful than myself. One physician informed me that he had effected a cure in one case, he thought, by opening both temporal arteries; and another, that in cupping the temples he accidentally cut the artery, which bled freely, and the patient recovered.

Case of Eversion and distortion of the lower Eyelid, treated by a Plastic Operation. By W. W. DURHAM, M. D., of Georgia. Reported by A. A. BELL, Student of Medicine.

The subject of this report, Mr. T. J. M., a young man aged 19, had the misfortune while quite young to fall from a waggon and be caught beneath its wheels, which passed partially over his body, obliquely across his face in the direction of the inner canthus of the eye, ranging with the cheek, producing a lacerated wound, in their whole trace, upon the face, extending upon the forehead, and it was thought fractured the frontal bone. The result of the injury was a considerable distortion of the lower eyelid, at the same time everting it. The lid was torn loose at its inner angle which was, by the contraction of the cicatrices, carried down upon the cheek fully an inch. The effect of this derangement of the parts was such as slightly to protrude the eyeball and to push it below the plane of its fellow. The upper eyelid, by being drawn upon by the contraction of the cicatrices, is made to cover a larger portion of the globe of the eye than natural. Along with the displacement, I would observe that the punctum lachrymale being carried down with the internal canthus, was rendered entirely incapable of performing the important office of removing the tears, and possibly the canal has been altogether obliterated, consequently a state of epiphora existed with the injury. By the long exposure of the conjunctiva to the action of the atmosphere, it has become quite thickened, presenting constantly the red appearance of vascular excitement. The cicatrix below the eye which acted most prominently in drawing the lid down, had formed through the medium of the cellular tissue strong adhesion to the periosteum. Thus exposing the eye and its tender lining

to the contact of foreign bodies, and the impressions of atmospheric changes.

In this uncomfortable situation, after the lapse of six or eight years, the young man concluded to submit to an operation for the purpose of having the deformity and exposed condition of the eye overcome as much as possible. Dr. Durham was consulted, and on May the 6th, it was decided that a plastic operation should be performed, in the manner described by Professor Pancoast in his work on "Operative Surgery," and there ascribed to Lallemand. This was done in the presence of several medical gentlemen. To fulfil the indications demanded, a section was made beneath the lid an inch or more in length. The integument was then dissected up, so as to allow the lid to be replaced as much as the condition of the surrounding parts would admit, leaving a considerable gap to be filled. To supply this breach a flap was raised from the cheek, after the manner laid down by the author in the work before mentioned, (fig. 3, plate lxxiii.) twisted upon itself and laid in the interspace made by the previous section and confined by a few interrupted sutures. The wound upon the cheek was brought together in the same way. To approximate the edges of the cut surfaces more closely, a few straps of adhesive plaster were applied. Thus managed, without any cumbersome dressing, and with the observance of a strict antiphlogistic regimen, adhesion readily took place without any untoward symptom occurring. The flap for a day or so exhibited but little signs of sensibility, from which state, however, it soon recovered. During the operation the patient was placed under the influence of *chloroform* with a happy effect.

In addition to the operation described, it was thought the inner canthus could be made to unite at its original place of attachment. This was attempted but did not succeed entirely as the flow of the tears interfered, frustrating the adhesive process, leaving the parts, however, in no worse condition than before.

The effect of the operation has been to overcome in a great measure the everted condition of the distorted lid, though not to the same extent it would, were it not for the hypertrophied state of the conjunctiva, which at the time it was thought prudent not to interfere with. Its removal would greatly add to the success of the operation. This was deferred to a subsequent period, and

would have been done, had the patient not objected. The young man who is quite intelligent, considers himself much benefitted.

I am aware that there is no new feature developed in this case, and although the operation has not succeeded equal to the sanguine wishes of the operator, it tends to show how much is to be expected from plastic surgery, notwithstanding an English surgeon of note (Fergusson) "would not be very sanguine of the happy results." Much has already been accomplished in this branch of the science, and the multiplied cases arm the surgeon with renewed confidence in the application of his art.

Case of a succession of monstrous births occurring in the same female. Extract of a letter to Professor DUNGLISON, from Dr. J. MARTIN, dated

PHILADELPHIA, DEC. 4TH, 1848.

I will cite the cases of monstrosity occurring in a lady with whom I have been well acquainted for about fourteen years. Previous to that time she gave birth to two well formed and well featured children. I attended her in the first case of monstrosity. At the period of my earliest acquaintance with her, she moved in the middle walks of society, and had enjoyed good health up to that time. She was well developed in figure, and gave birth to a child perfectly formed in every respect with the exception of its head and face. The eyes were placed at the top of the forehead, and all the superior and posterior parts of the head were deficient, the corresponding bones of the cranium being wanting, and the opening fringed round with something very like liver. Her labour was attended with no difficulty; but the liquor amnii was very abundant, and the child was still-born. She had a speedy recovery.

In about eighteen months after this she gave birth to another child which was properly developed as to face and head, but the flexor muscles of the legs and arms were in fault; I could not straighten its legs, arms, fingers, or toes, owing to the flexors being too short. Her labour, this time, was not so easy, in consequence of the arms being flexed on the breast, and the hands below the chin; yet it was not attended with much difficulty, and the liquor amnii was again abundant.

The next two confinements were similar to the first I have detailed, in every respect, the monstrosity being the same; from both she had a speedy recovery.

At the next, (in the winter of 1843-4,) I was not present, being in attendance on the medical lectures in Philadelphia, but I understood that the labour was not accompanied with more severity than is common to woman; the child was defective on the top of the head, and the liver-like growth was there as in the other cases.

In 1846 she was confined again, and I was summoned to watch over her difficulties during her labour. She was in great hope that she would have a perfect child, being led to this conclusion by the strong movements of the child *in utero*. During the labour the os tinæ dilated rather reluctantly; but when dilatation did occur and the membranes were ruptured, a great discharge of liquor amnii took place, and I was enabled to discover that the head was defective while it was still at the superior strait. The deficiency was the same as in the other instances, but it was born alive and lived about three hours, and moved and made considerable muscular exertion. There was hemorrhage from the liver-like production on the top of the head. This child assumed a cerulean hue, becoming more livid from the moment of its birth till its death. The lady recovered rapidly.

The last misfortune was in 1847, when she had a miscarriage; the embryo was about two inches in length, and the defect at the top of the head could be very readily discovered.

Here then, are five cases of mature labour, the products of which were all defective at the top of the cranium. One carried to the full term and defective in the flexor muscles, and one abortion, in which the embryo exhibited the same defect at the upper portion of the cranium, and all occurring in the same female apparently in the enjoyment of perfect health.

BIBLIOGRAPHICAL NOTICES.

Essays on Infant Therapeutics : To which are added Observations on Ergot, and an account of the Origin of the use of Mercury in inflammatory complaints. By JOHN B. BECK, M. D., Professor of Materia Medica and Medical Jurisprudence, in the College of Physicians and Surgeons of the University of the State of New York, &c., &c. 12mo. pp. 117. W. E. Dean, New York, 1849.

These Essays have appeared, at different times, in several of our Medical Journals; and from their favourable reception by the profession, the author has been induced to republish them in the present form. By doing so, he has conferred a substantial benefit on the profession, and promoted the cause of humanity. Many physicians are either not aware, or not sufficiently mindful of the great susceptibilities of the constitutions of very young subjects to the effects of what are called heroic remedies, and of course, the unprofessional who administer such without the physician's knowledge, often do incalculable mischief. To both of these classes of prescribers, the *Infant Therapeutics* of Dr. Beck will prove an instructive monitor.

The first Essay is *On the effects of Opium on the young subject*. "With regard to the effects of opium on young subjects," observes the author, "there are two facts which seem to be well established. The *first* is, that it acts with much *greater energy* on the infant than it does on the adult; the *second* is, that it is more *uncertain* in its action on the infant than the adult. It is in consequence of these peculiarities attending its operation on the infant, that even the smallest quantities have not unfrequently produced the most unexpected and even fatal results." Cases are cited from various authors in proof of these positions.

"The causes of this (difference between the infant and adult) would seem to be the following:

"In the *first place*, the great difference in the physical organization of the *infant* and the *adult*. In the young subject the brain

and nervous system are much more impressible, and the slightest causes, as we know, will sometimes derange them. Besides, in the infant, the circulation is more rapid—there is a greater proportionate quantity of blood circulating in the brain, and hence a much greater tendency to cerebral determinations. From these peculiarities in the organization of the infant, it happens that convulsions are so much more common in the early periods of life. Thus, for example, the irritation of teething—of worms or crude matters in the intestines, is frequently followed by convulsions. Intermittent fever, which in the adult, commences with a chill, in the child is frequently ushered in by a convulsion. Scarlet fever, too, in the child, not unfrequently commences with a convulsion, while in the adult I have never witnessed such an occurrence. Now, with such peculiar predispositions characterizing the system in infancy, it may readily be conceived how it is that such an article as opium should act with more power at that period than in after life.

“In the *second place*, the difference in the *temperament* or *constitution* of infants. In the adult, we know as a matter of fact, that opium differs greatly in its effects in different constitutions. Thus, as a general rule, the sanguine temperament does not appear to bear the use of this drug as well as the melancholic or the nervous. In the former, it is much more apt to produce cerebral disturbance, and in large doses is more likely to prove injurious. Now, infants differ from one another, as much, if not more, than adults, in these peculiarities of constitution, and, as a matter of course, the difference in the effects of this article must be greater. Besides, as these peculiarities and differences can only be detected by actual experience, and as we cannot of necessity have the same benefit of experience in the case of infants, it is obvious that the difficulty of justly appreciating the action of this drug on the infant must be greatly increased. A greater or less degree of uncertainty, therefore, must necessarily from this cause attend its use in the early periods of life.

“In the *third place*, the actual state of the system as to disease. There is no circumstance which modifies the effect of opium in so great a degree as this. In the adult, we see this continually. In some conditions of the system, even small doses produce the most unpleasant effects, while in other conditions, immense quantities may be given with little or no effect; thus, for example, when severe pain or spasm is present, quantities of this article can be borne, which under other circumstances would prove exceedingly injurious.”

From these peculiarities of the action of opium, the author very justly remarks “that its use should *be avoided as much as possible*

in the young subject,"—that is, that it should not "be used without a strong and manifest necessity," and of this necessity, a well instructed physician is of course the only proper judge.

"Great caution should be exercised in the *form* in which it is administered. No preparation should ever be used, which *is not of a known and determined strength*;" and "in very young subjects, we should never begin the use of this article, except in *very small doses*."

The author prefers, as "the best preparations for children," *laudanum*, *paregoric*, and *Dover's powder*. The formulæ for these are in the Dispensatories, and when properly prepared, they are of uniform strength. He objects to the syrup of poppies, Dalby's carminative, Godfrey's cordial, &c., because of their *uncertain* strength. Even with regard to the preparations recommended, much caution is necessary from the very vague directions given by authoritative writers for their employment in the treatment of particular diseases.

Essay II. is *On Emetics*. Professor Beck maintains that, in infancy, from anatomical and physiological peculiarities, vomiting is more readily effected than in the adult, and that, therefore, the milder articles should be employed, and those of an active and energetic character, which produce much nausea, as the antimonials, avoided. As a general rule, this is undoubtedly correct. Every practitioner of experience must have witnessed cases where, from the frequent or long continued use of antimonials, either in emetic or nauseating doses, in hooping cough, scarlet fever, and measles, alarming sedation has been induced, from which no ordinary restoratives could snatch the sufferers.

Essay III. is *On the effects of Mercury on the young subject*. In this essay the same cautious spirit is manifested as in the preceding. The latitude within which our author would allow of the use of mercury in the young subject, is greatly restricted in comparison with the general custom—more restricted, perhaps, than is always necessary. He thinks that because in young subjects it is not so liable to salivate, the temptation to employ it is the greater and leads to bad consequences. Contrary to general opinion, salivation from the use of mercury does sometimes occur before the third year, and even in younger subjects, and then it is most disastrous. "*Although mercury so seldom salivates infants,*

yet, notwithstanding this, it cannot be doubted that it affects the system profoundly, and even more so proportionally than it does the adult." "A single large dose of calomel," he remarks, "will cause nausea and relaxation, and sometimes unpleasant prostration, while if it be given in smaller doses and repeated frequently, it will occasion irritation of the intestines, and general disturbance of the vascular and nervous system. In the former case, acting as a profound sedative, and in the latter as a stimulant, or rather irritant."

Although it be true that large doses of calomel are capable of producing profound sedation, both in the young and the old, and therefore should not be needlessly had recourse to, it is important to avoid the other extreme, of withholding the remedy in many cases in which there is no effectual substitute for it. The instances in which it occasions salivation in those under *two* years old are so rare, and the cases in which it may be employed advantageously, both as a cathartic and alterative, so numerous, that we should not hesitate to prescribe it when called for with as little dread as any other medicine. Simply as a cathartic, without any other object than merely to evacuate the bowels, it never should be administered, *because it always does exert a wider influence*; but it is in consequence of this extensive action that it is frequently of such signal benefit.

Essay IV. *Treats of the effects of blisters on the young subject.* The peculiarities attending the operation of blisters on the young subject are the following:

1st. They produce their effects in a shorter time than they do in the adult.

2d. The local inflammation produced by a blister is greater in the young subject than the adult.

3d. Blisters are more apt to be followed by the injurious consequences of inflammation, such as ulceration, gangrene, and even death.

4th. The constitutional excitement produced by blisters is generally greater in young subjects than in the adult.

Numerous cases are cited by the author, illustrative of these points.

The author, from the effects of blisters, thinks it follows that they may be rendered more efficient as a means of cure in their diseases than in adults, under similar circumstances.

The essay contains many sound observations of great practical importance on the use of these powerful agents—with a greater leaning to their employment, however, it seems to us, than accords with our own experience of their expediency.

The 5th Essay is on "*the effects of blood-letting on the young subject.*"

The author asserts that the young subject does not bear the loss of blood in considerable quantities, nor the repetition of the operation, so well as the adult, and that the nervous system in them is more powerfully affected by it.

We regard this essay as one of the most important in the volume, and eminently practical in its scope, and sound in doctrine. Indeed, all are of that character; nor do we know of any publication, of recent date, in which so much information and counsel of great value to the young practitioner, on the subjects of which it treats, is to be found as in this small volume of Professor Beck.

An Introductory Lecture, delivered to the Class of Institutes of Medicine in Jefferson Medical College, October 19, 1848. By
ROBLEY DUNGLISON, M. D. Published by the Class.

Professor Dunlison is one of our most attractive medical lecturers, and the lecture before us fully sustains that reputation. After introducing himself to his class in his happiest style, we are pleased to find him choosing, as the subject of his discourse, some point connected with the study of Physiology. This we conceive to be the true object of an introductory lecture, though it has been, and still is, too common for Professors, on such occasions, not only to say little or nothing about the subject they propose teaching, but to wander from the domain of medicine in search of material from some other department of science. This plan may be pleasant enough to the writer, but cannot prove instructive to the medical student; and we fear that many lectures are written rather to catch the public applause than to convey useful general instruction in the various branches of medical science.

Dr. Dunlison, in his lecture, commences with a general survey

of the rise and progress of Histology, or the minute anatomy of the tissues of the body. One of the earliest objects of the Histologists was, to ascertain "whether all organized bodies, resembling each other as they do, so highly in their mode of development, might not by ultimate analysis be found to originate in the same manner." To the early researches of the Edwardses, of Raspail, and more recently of Schwann and Schleiden, we are indebted for the discovery of the beautiful theory of cell development, by which it has been proved that "the elementary parts of all tissues are formed of cells in an analogous though very diversified manner, so that it may be asserted, *that there is one universal principle of development for the elementary parts of organisms, however different, and that this principle is the formation of cells.* A structureless substance—as the liquid germ of the vegetable, and the liquor sanguinis of the animal—is present in the first instance, which lies either around or in the interior of cells already existing, and cells are formed in it, in accordance with certain laws; which cells become developed in various ways into the elementary parts of organisms." But these cells, whether of animal or vegetable origin, besides resembling each other in form, &c., are found to be identical in chemical composition—a fact of the highest importance in the dietetic management of diseases.

The lecturer next proceeds to speak of the "impulse seated in the living ovum and seed, which, under favourable circumstances, leads to the development of an organised body, according to a definite plan and arrangement." Of the nature of this impulse we are entirely ignorant, but enough is known of the mode in which, under its influence, every organised tissue is developed, to prove that its existence is anterior to the formation of bloodvessels and of nerve matter, and consequently these cannot be regarded as identical with that vital principle with which the cells seem to be endowed. It appears, moreover, that these cells are possessed of an instinctive force, capable of repairing, to a certain extent, injuries inflicted upon the animal or vegetable structure. All these points are appropriately illustrated by the lecturer; but for these, and some interesting remarks upon the immense distances to which animalcules and cryptogamic sporules may be transported, thus probably becoming a prolific source of disease, we

would refer the reader to the lecture itself, which he will find well written and highly instructive.

The above is the only Introductory that was received in time for notice in this number. Several, that have come to hand since, will be noticed in the February number.

Medical Lexicon of Modern Terminology; being a complete Vocabulary of Definitions, including all the technical terms employed by Writers and Teachers of Medical Science at the present day, and comprising several hundreds of words not found in any other Dictionary. Designed for the use of Students and Practitioners. Second edition, greatly enlarged. By D. MEREDITH REESE, M. D., LL. D., Resident Physician of Bellevue Hospital; Editor of Cooper's Surgical Dictionary, &c. 24mo. pp. 230. New York: Samuel S. & William Wood. 1848.

The ready sale of the first edition of this little work is sufficient evidence of its acceptableness to those for whom it was especially intended. The demand for a second edition rendered it "imperative upon the author to correct, improve and enlarge the work, before again committing it to the press." It is with regret we notice that this commendable intention has not been carried out, and that many, if not all the glaring defects of the previous edition, as pointed out in a notice published in this Journal, in February, 1845, are still allowed to stand unchanged.

In addition to those then mentioned, many others might be cited which meet the eye on almost every page, which, if not positive errors, are, at least, inaccuracies. Such, for instance, as ACCELERATOR URINÆ: "*a muscle of the bladder.*" ABDOMINAL CAVITY: "*the sac of the peritoneum is strictly so called, excluding the kidneys and pelvic viscera.*" According to this definition, then, the peritoneal sac and the abdominal cavity are the same, and the kidneys are not in the cavity of the abdomen! Opening again at random, we find PES ANSERINUS: "*a goose's foot, distribution of a plexus of nerves on the side of the face; seat of the tic*

doloureux.” The student is allowed to choose between *the portio dura of the seventh*, and *the branches of the fifth*, as to which is the *goose’s foot*. If he be aware which forms the *pes anserinus*, he is misinformed as to which is the seat of neuralgia. Again; SEMIMEMBRANOSUS: “*muscle of the thigh.*” SEMITENDENOSUS: “*muscle of the leg*”! Numerous examples of a similar description might be mentioned, but these are perhaps sufficient to indicate the character of the work in regard to accuracy of definition.

The author further states, in the preface to the second edition, that the changes and improvements which are perennial in every branch of the healing art, are of necessity suggestive of new technicalities, “hence the office of the humble lexicographer imposes upon him the duty of collecting and defining these in every reprint of his book; a task which,” it is complacently said, “has been performed in the present instance, as it is hoped, to the full extent desirable in such a dictionary.” Under this assurance, we turned confidently to look for the terminology of the world-wide cell-doctrine, but found nothing to assist the student in the comprehension of this abstruse subject.

It is with pain that we are obliged to subscribe to the opinion previously expressed in regard to the first edition, and to regret that a work whose character and object are so manifestly useful to the student, should be so marred by the glaring inaccuracies and defects designated in this and the previous notice.

A Text-Book of Practical Anatomy. By ROBERT HARRISON, M. D. M. R. I. A., Fellow of the Royal Colleges of Surgeons of Ireland and England; Professor of Anatomy and Surgery of the University of Dublin, etc. With additions by an American Physician. With numerous illustrations. 8vo. pp. 720. Samuel S. & William Wood. New York, 1848.

This, we perceive, is our old companion, “*The Dublin Dissector*,” under a new name; and with additions, too, by an American Physician. Who the “American Physician” is, what are his qualifications, and what are the additions which he has made, we are not informed, any more than of the reason why his

name is not on the title page as the lawful claimant of his share of the publication. To these omissions we have decided objections. They leave the reader in doubt as to what belongs to the author, and, so far, are unjust to him as well as to the Annotator, who, if his additions are really valuable, is deprived of his due by the suppression of his name. Neither do we see the propriety of a change in the title of the book. The old name of "Dublin Dissector," by which every body knew it, is just as expressive as that which the "American publishers" have deemed "the more appropriate title," beside the discourtesy of christening an author's work by a title which he has not seen fit to bestow upon it. It is a liberty, we think, which is not warrantable under any circumstance.

The Dublin Dissector has long held, and deservedly, a high rank among the hand-books for the guidance of the student of anatomy in the dissecting room, and the illustrations contained in the latter editions much enhance its value; but for the general study of the science, it is defective from the total omission of histology.

The typographical execution of the volume before us is very creditable to the publishers, but the illustrations are shockingly bad. To those who are accustomed to look upon specimens of the kind executed in London or Philadelphia, and sometimes in New York publications, the contrast is anything but agreeable.

THE MEDICAL EXAMINER.

PHILADELPHIA, JANUARY, 1849.

A CARD.

The late Editor of the Medical Examiner, in so suddenly retiring from its management, deems it respectful to its patrons to offer a few words of explanation.

To many it is known that his editorial duties have been performed under great disadvantages. More than thirty years of uninterrupted devotion to the practice of his profession, has naturally brought upon him the labour and distractions incident to an extensive business; these, with his public duties and his domestic affairs, have rendered it impossible for him to give to the journal the attention demanded by its importance and his own reputation. In the last number, he adverted briefly to this subject, and expressed a hope that, in future, he should be able to make arrangements more in accordance with his wishes; further reflexion, however, has satisfied him that it is better for him to relinquish the task, and devote himself more exclusively to his other imperative duties. In taking this step, he is happy in the opportunity of giving place to gentlemen every way capable of maintaining the character and usefulness of the journal. The present editors, are extensively and favourably known as teachers and authors, and as the editorial labours will be divided, the task to them individually will be less onerous, whilst the interest of the journal will be promoted by the increased attention they will be able to bestow upon it. Their characters are a sufficient guarantee that it will be conducted with ability and independence, whilst their disconnection with any of the Colleges will protect them from the ascription of wrong motives in their impartial criticisms. Hoping that the liberal support accorded to the Medical Examiner in past years will be continued under its new conductors, and that all parties will be benefitted by the change, with many thanks to its readers for their generous indulgence, he now bids them *adieu*.

It will be seen by the above card, that the Medical Examiner has passed from the management of the former able editor into the hands of

those whose names appear upon the cover. In assuming the responsible position of editors of a Medical Journal, so widely circulated, and lately so successfully conducted, the present incumbents feel that they will have to draw largely upon the kindness and indulgence of its patrons. The duties have devolved upon them so suddenly and unexpectedly, that they have scarcely had time to make the necessary arrangements incident to a change, before the day of appearance of the Journal had arrived. This, it is trusted, will prove a sufficient apology for the scarcity of original articles and notices in this number.

In conducting the Journal, the present editors desire and intend, as far as lieth in them, to be strictly independent and impartial, with the earnest hope that no wrong motive or sectional prejudice may be attributed to whatever may appear from them in their official capacity. It will be observed, that in the present number the arrangement of the Record is somewhat altered, each department being classified under its appropriate head; this, it is hoped, will add to its interest, and enable the reader of the Examiner readily to find that which is most interesting and useful to himself. The large supply of foreign and domestic periodicals received by this Journal, will enable the editors to present the most recent information in every department of Medical Science. They also propose to make arrangements for the reception of reports from Practitioners, Hospitals, and Cliniques, of interesting cases; by these means, trusting to enhance the value of their Journal.

The readers of the Examiner, and the profession generally, will confor a favour upon the Editors by contributing to the pages of their Journal whatever may be of interest in any department of Medical Science.

PROGRESS OF THE CHOLERA IN THE UNITED STATES.

For the purpose of presenting our readers with the latest account of the progress of the cholera in New York, we extract from the columns of the "*Courrier des Etats Unis*," the following communication from M. le docteur Bodinier, ex-chirurgien interne des hôpitaux de Paris—docteur en médecine et docteur en chirurgie de la Faculté de Paris:

"The ship 'New York' left Havre, in which port no cholera exists, on the 9th November, 1848. There were on board, including passengers and crew, 385 persons, in the enjoyment of good health. The voyage was favourable, in every respect, during the first sixteen days. At this time the vessel had arrived near the shores of Nova Scotia, (lat. 49°, long. 61°,) when a passenger in the steerage, aged 29 years,

was taken sick. This was a case of cholera. The second case occurred two days after, in a man 62 years of age; the third and fourth in two children 3 years old; the fifth in a man 40 years of age, and the sixth and seventh, in two children five years old. All of these died between Nov. 29, and Dec. 3d, the day on which the ship entered the port. Twelve other sick persons were on board, and were landed at the Quarantine with the rest of the passengers.

Three days after the arrival of the ship, six new cases of cholera made their appearance, four of these occurred in persons at the hospital before the arrival of the 'New York.'

At the same time, Dec. 5th, a convalescent person, not one of the passengers of the New York, came to the city. He was attacked with the cholera in the night, and carried back to the Quarantine. Some new cases showed themselves at the hospital on the 7th, 8th and 9th of December, among the passengers of the New York, and two others among those in the hospital previous to the arrival of the vessel. The weather on the 10th, 11th and 12th of December, being mild and dry, the epidemic appeared to cease. During two days there were no new cases. On the 13th, 14th and 15th of December, the weather became damp and cloudy, and thirteen new cases appeared among the passengers in the steerage of the New York, who had been retained at the Quarantine. The ship, after twelve days' quarantine, came to the wharf with her crew and cabin passengers, none of whom had as yet been sick. Thus, up to this time, the epidemic had attacked, whether on board or at the Quarantine, *only* the steerage passengers, both French and Germans, coming from regions of country where there had been no cholera previous to their departure, and who could not have been infected by the contagion communicated from one person to another.

On the 10th, at the moment when the epidemic appeared to have ceased at the hospital, a German, living in the lower part of the city, in the house where the cholera patient had passed the night, and who had not been at the Quarantine, was attacked with cholera. It was in a large room with six or seven beds, and only one of those, who slept there, was attacked. The patient died, and the physicians who saw him, assert that it was a case of Asiatic Cholera. There has not, however, been any other case, either in the house alluded to, or in the city. So that this fact, which at first sight would seem to give great weight to the belief 'that the disease is contagious,' consequently exciting unnecessary alarm, has, on the contrary, only the value of a simple coincidence; if attention is paid to the fact, that there were a great number (perhaps more than fifteen persons,) who slept at the same time in the same room, without being sick, more than other persons of the house, all of whom, on account of the crowded apartment, of the regimen, and of the want of cleanliness, are as much predisposed as possible to the developement of the scourge which is threatening us.

In a word, there has been, up to the present time, about fifty cases of cholera at the Quarantine. It is the true Asiatic disease which exists there. I have seen various types of the disease among those who

are still sick. But that which should restore the public confidence, is that the treatment employed, when applied in time, has succeeded in saving nearly all the cases, in spite of the enfeebled condition of the poor emigrants, who, during a long voyage, are crowded in the steerage and subjected to all the influences which are so favourable to the developement and malignity of the cholera."

In addition to the above interesting account, we learn from our daily papers' reports, that on Monday, the 18th ult., five new cases of cholera occurred at the Marine Hospital. Since Sunday at noon, and within the same period, there have been three deaths. On Tuesday afternoon, the Health Officer at the Quarantine reports two new cases and two deaths, since the report of Monday. On Thursday, several are reported to have died, who were inmates of the Hospital previous to the arrival of the ship New York.

The only account we have of its further progress in the city, is the following :

"CHOLERA IN NEW YORK CITY.—The resident physician reports a case of cholera as having occurred on Wednesday morning, at 161 Washington street, N. Y., at a German boarding house. The case is that of a German who has been twelve months in the United States—arrived from Pittsburg here eight days since—has had no intercourse with the passengers of the ship New York, and had taken passage in one of Fox & Livingston's vessels, and would have sailed that day for Europe if this attack had not prevented him. He died during the day."

The cholera has not made its appearance either in this city or at the Quarantine. In Baltimore the following report has reached us :—

"Considerable excitement has prevailed in our community during the afternoon, growing out of a report that the cholera had actually made its appearance in our city, that several deaths have taken place, &c. After careful examination I find that the report had its origin in the following circumstances :

The ship *Cyrus Richards*, Capt. Welsh, arrived here to-day from Rotterdam. It appears that during the passage several cases of cholera occurred. The captain was among the first attacked, but by timely assistance and the proper remedies, he recovered. Mr. Baines, the first mate, one of the seamen, and one of the passengers, were next attacked, and notwithstanding every attention was paid to them, the three died. Several others were attacked, but they fortunately escaped.

The last case occurred on the 19th of November, and on the 25th the officers, crew, and passengers were in the enjoyment of perfect health. The ship is now at quarantine strictly guarded. She has been visited by the Health Officer, who reports that there is not a case of cholera on board."

Through the telegraphic reports, we learn that this disease has made its appearance in New Orleans; five deaths are reported as having occurred on the 16th inst.

WESTERN JOURNAL OF MEDICINE AND SURGERY.

It is gratifying to us, at the very commencement of our career, to be spared the discouraging prospect of want of success in an ably conducted Journal. By the last number (December) of the Western Journal of Medicine and Surgery, we learn that the prompt response given to the appeal of the editors in the November number, has decided them to continue the work. May success attend their renewed exertions.

NAVAL APPOINTMENTS.

The following Assistant Surgeons in the Navy, examined by the Medical Board recently convened at the Naval Asylum, Philadelphia, have been found qualified for promotion, and passed, viz :

Andrew A. Henderson, Passed Assistant Surgeon, to rank next after Passed Assistant Surgeon J. Hopkinson.

Elisha K. Kane, Passed Assistant Surgeon, to rank next after Passed Assistant Surgeon J. Wilson, Jr.

Edw. Hudson, Passed Assistant Surgeon, to rank next after Passed Assistant Surgeon E. K. Kane.

Of the candidates examined for admission into the service as Assistant Surgeons, the following have been found qualified :

Francis M. Gunnell, of the District of Columbia; Jas. Suddards, of Pa.; Robert Carter, of Va.; S. Allen Engles and Edward Shippen, of Pa.; Gerard Alexander, of Ky.; Benjamin Vreeland, of N. Y.; Walter Hore, Carthon Archer, Richard B. Tunstall and Charles H. Williamson, of Va.; James F. Heustis, of La.; Arthur M. Lynah, of S. C.

The candidates will inform the Department of their respective places of residence.

Navy Department, Dec. 7, 1848.

MANSLAUGHTER BY VACCINATION.

A physician of Pulaski county, Illinois, has been sentenced to the penitentiary for the term of four years and a half, upon a charge of manslaughter, growing out of his vaccinating a man with small-pox matter from the effects of which he died. Particulars not given.

The editors of the Medical Examiner, take pleasure in giving insertion to the following from Dr. Huston :

CORRECTION.—In the notice of Professor Channing's book on Etherization, contained in the last number of the Examiner, an error occurred in transcribing a paragraph from the work, which, as it does injustice to the author, the writer of the notice embraces the earliest opportunity of correcting it. It is in the following quotation : "It is no part of the purpose of the following treatise to teach, or to leave it to be inferred, that *no* untoward results have not followed, or will not again follow etherization." The word *no*, which we have put in italics, is not in the sentence in the book, and should not have appeared in the quotation.

RECORD OF MEDICAL SCIENCE.

ANATOMY AND PHYSIOLOGY.

On the Multiplication of Vegetable Cells by Division. By Prof. MITSCHERLICH.—Some interesting observations on this subject occur in a memoir read by Professor Mitscherlich before the Royal Academy of Berlin, on the development and Composition of the Conservæ. They accord with the account of the process given by Mohl, and confirmed by Hensley, as to the mode in which the multiplication of vegetable cells takes place by simple division. The process commences by a doubling-inwards of the "primordial utricle," or lining membrane of the cell, which detaches itself from the proper cell-wall, and exhibits an hour-glass constriction round its middle. The constriction continues to increase, until the original cell cavity is divided into two parts, the communication between which is entirely closed up. Between the two layers of the primordial utricle thus folded in, a new layer of cell-membrane is subsequently formed ; and thus the two new cells are at last completely divided from one another. The opinions of observers are becoming more and more in favour of the view, that multiplication by the cell-division is the regular mode of increase in vegetating or growing parts. On the other hand it is also generally agreed that spores, pollen and embryos are produced by free cell-formation from nuclei.—*Brit. and For. Med. Chir. Rev. from Annals of Natural History, June, 1848.*

On the Spleen. By Drs. VERGA and TIGRI.—Dr. VERGA detailed to the *Scienziati* at Venice the results of his multiplied experiments upon the removal of the spleen of cats, dogs, &c. He arrived at the following conclusions:—1. Nature does not constantly provide animals who have been deprived of their spleens with a new one, nor with a greater development of the liver, the thyroid body, the omentum, or the mesenteric glands. 2. Obesity, salacity, or sterility, are not constant or frequent effects of its removal. 3. Among the least unfrequent phenomena are to be noted during life, a greater vivacity, conjoined with a tendency to tabes, notwithstanding a keen appetite; and after death various alterations in the liver.

Dr. Verga was opposed to considering the spleen as performing a mere mechanical office, as a diverticulum of the blood in the case of impeded circulation; but still he was desirous of giving some account to the Congress of Dr. Tigri's researches, who had discovered in a special condition of the vessels of the human spleen—a mechanism which he termed a “compensator for the circulation.” He found as far as the eye and the scalpel could pursue them, that the splenic arteries and veins always ran within a common, inextensible cellular sheath, the veins being four or five times larger than the arteries, and in good part surrounding the calibre of these; the parietes of both vessels being so thin as to allow of the action of the fluid they contained being reciprocally felt. When a too large influx of blood upon the spleen takes place, therefore, the veins compress the arteries and impede a farther flow. Dr. Tigri was surprised to find that in the *horse* the veins and arteries ran at some distance from each other; but this fact, which seemed at first to oppose his theory, was found to support it, when he discovered that Nature, besides having given the vena portæ in this animal a valve, as first shown by Ernest Weber, has likewise furnished the veins leaving the spleen with valves, so that a regurgitation of blood into the viscus is prevented.

Dr. Verga mentioned, that in removing the spleen in cats and dogs, we may divide the duplicature of the peritoneum, connecting it to the stomach, without tying any of the small vessels into which the arteries and veins are there subdivided, these not giving rise to any important hemorrhage.—*Ibid*, from *Gaz. Medica di Milano*, 1847.

On the Action of the Pancreatic Fluid. By M. CH. BERNARD.—The author of this paper concludes from his experiments that the pancreatic secretion is essential to the reception of fatty matters into the system. He found that it immediately produces an emulsion, when mixed with oily substances; a property which is not possessed by any other animal substance. The first action seems purely mechanical; but after a time a further change takes place, the fats being decomposed into their fatty acids and glycerine. In this state the bile, which does not act on the neutral fats, will readily take them up; and thus a mixture of bile and pancreatic juice, such as is found in the duodenum, has the double power of dissolving the neutral fats and the

fatty acids. The author has found that if the pancreatic ducts be tied, no fatty matters find their way into the chyle.—*Ibid*, from *L'Institut*, Mai 3, 1848.

On a Remarkable case of Ocular Disease produced by an Electrical Discharge. By THOMAS CUTLER, M. D., Physican to the Dispensaire General at Spa, Belgium.—I was consulted, a few days since, by Mons. L——, a lieutenant in the Belgian Custom-house service, for a defect of vision, which, at the first moment, I considered to be only a case of advanced amblyopia; but by a more minute examination, I was led to the discovery of the following interesting circumstances:—

Mons. L——, resided at Viel-Salm, on the Prussian frontier, fifty-one years of age, of tall stature, of a sanguineo-nervous temperament, not stout, but of a well-knit frame, and who had been all his life in the enjoyment of robust health, with a remarkably keen vision, was, about six weeks ago, while out on duty, overtaken, in the neighbouring mountains, by a terrific thunder-storm. On the occurrence of a more than usual vivid flash of lightning, followed almost instantaneously by a violent peal of thunder, Mons. L—— felt as if struck by a violent blow on the head, his vision became dim, and he immediately set about returning home. Before reaching his house, the head began to swell to that degree, that upon his arrival he became much alarmed, and sent for the surgeon of the neighbourhood. He describes the swelling to have been equally diffused over the entire scull. He was bled, leeches, several times cupped on the nape of the neck, and otherwise treated antiphlogistically; under which means the tumefaction gradually subsided, and at the end of a fortnight the soft parts returned to their normal condition. The amblyopia continuing, however, to increase, his medical attendant recommended him to visit Spa, and consult me forthwith. I found the pupils much dilated, sluggish in their contraction even before a powerful light, but no change in the transparent humours. Upon closely questioning him, I ascertained that he had become nyctalopic—objects appearing before sunset enveloped in a thick haze, while from that time until morning they were again seen quite distinctly. Suspecting at least a faint central opacity of the lenticular system, I examined him still more attentively by the aid of a *loupe à diaphragme*; but failing to discover any pathological alteration, I subjected him to the well-known test of Purkinje. The result was the same—the refractive structures of the eye were perfectly transparent, and there could be, consequently, no further doubt of its being a true case of nyctalopia.

Willing to ascertain if there were any other phenomena connected with this defect of vision, I tested him upon the perception of colours, and found him anerythroptic. I give you his own appreciation: bright-red he described as pale-yellow; deep-red, deep-yellow; orange, yellow; crimson, the colour of unbleached linen; green, greyish-white or chocolate colour; Vandyk brown, dirty yellow, (*jaune bourbeux*;) carmine, greyish-yellow: while every diversity of blue

he distinguished with ease. Mons. L—— stated that at times, but not frequently, all white objects appeared more or less yellow. I have forgotten to observe, that the green which I exhibited to him upon a white ground, and which he mistook for greyish-white, was nevertheless surrounded by a halo of green.

Seebeck, (see Poggendorff's *Annals*, vol. xlii.,) having accurately tested sixteen anerythroptic individuals, divided them into two classes, those to whom blue, indigo, violet, and green, and those to whom the more refractive rays of red and orange, appeared altered.

How far Brewster's theory for the explanation of anerythroptia, (see Wollaston, *Transactions of the Royal Society*, 1820,) or Herschel's theory, (see "Metropolitan Encyclopedia," § 507, art. on Light,) may find support in this remarkable case, of which the ultimate cause is well attested—namely, electricity,—I leave to others to determine. The facts above recited I cannot but consider worthy of the consideration of physiologists, and natural philosophers, as they furnish at least one undoubted example, that both nyctalopia and anerythroptia may be due to a powerful external cause, while the cause itself may perhaps, in this instance, tend to elucidate the change of structure by which such phenomena can alone take place.

Being, as I have before observed, a healthy man, and unwilling to be placed on the pension list, Mons. L. is anxious to be relieved of his impaired vision, which at present incapacitates him for service. I am therefore treating the case as one of anæsthesia, by the cold douche, and the internal administration of the valerianate of quinine and iron combined with assafoetida. Should this or any subsequent treatment lead to results at all interesting, I shall be happy to communicate them.—*London Lancet*.

The Intention of Hiccup.—In the convulsive movement of hiccup, the diaphragm is depressed; the larynx is raised; and the glottis is closed. What would be the effects of these conditions? The depression of the diaphragm would tend to expand the cavity of the chest; but the glottis being closed, no air can enter the lungs. The two ends of the œsophagus are, however, still open, and if the hiccup be strong enough, air will enter the œsophagus at both ends. If a person will make a prolonged voluntary effort of the conditions which occur in hiccup, he will find a portion of air sucked, as it were, into the œsophagus, from the pharynx. Now, spasmodic hiccup is a reflex movement, excited, in general, by gaseous irritation of the stomach; under these conditions the hiccup will suck the air of the stomach into the lower extremity of the œsophagus. This, then, is the intention of hiccup—to pump off the air of the stomach. The movement of the hiccup sucks the gaseous contents of the stomach into the lower extremity of the œsophagus, and an inverted action of the œsophagus propels them upwards, and discharges them at the pharynx.—*Prov. Med. and Surg. Jour.*

On the Absorption of Insoluble Bodies. By M. MIALHE.—In our review of Mialhe's *Traité de l'Art de Formuler* (July Number, p. 37.) we mentioned that the experiments of Oesterlen, in which he found that charcoal, administered by the mouth to fowls and rabbits, passed into the blood, in which fluid the carbonaceous particles might be detected by the microscope, were opposed to Mialhe's doctrine, that "every substance, capable of exerting a remote action on the animal economy, is soluble, or susceptible of becoming so in the fluids of the body * * * such substances alone being capable of absorption."—(See also *Journal* for May, 1847, p. 488.) M. Mialhe has since repeated the experiments of Professor Oesterlen, and asserts that charcoal, when thus administered, does not pass into the circulation.—*Ret. of Med. Sci. from Gaz. Med. de Paris*, August 19.

CHEMISTRY.

A procedure for the more secure Detection of Arsenic in minute quantity. By T. F. GEOGHEGAN, M. D., Prof. Forens. Med. Royal College of Surgeons in Ireland.—The practitioner when called upon in his capacity of medical witness to pronounce on the presence of poison, when the quantity capable of elimination is extremely minute, often experiences considerable difficulty in giving an opinion sufficiently definite for judicial purposes.

The embarrassment alluded to does not arise from the organic contaminations of the matter examined, nor from the effects of putrefaction upon it. The former may no doubt completely mask the presence of vegetable poisons, while the latter may render nugatory a search for the mineral acids, or, in conjunction with the first-named influence, may so far modify some of the metallic poisons as practically to place them, in our reports, in an equivocal position, considered as deadly agents. The inconvenience which the present communication proposes to remove in a particular case, results from the impossibility of subdividing a very minute quantity of a poisonous substance, so as to apportion it amongst such a number of reagents as shall suffice for its *unequivocal* detection, without obscuring the indications of some, or multiplying those of others. It is presumed that most practitioners have encountered this difficulty in the case of arsenic—a substance which so frequently gives rise to grave and intricate medicolegal inquiries. The number of reagents which may be requisite to furnish this conjoint evidence for the valid discrimination of poison, can only be indicated by reference to individual substances, and by a careful consideration of the chemical habitudes of each. Even in special cases much difference of opinion and practice prevails. Thus, in relation to arsenic, it has been the custom to attach, as I conceive, too exclusive importance to reduction and oxidation, in comparative neglect of other indications, which, when properly associated, are equally, if not more, distinctive, and which I propose to show may, in almost all

cases, be conjoined with the former. The method of reduction devised by Reinsch, has, in the case of complex mixtures, from its facility and delicacy, superseded all others, with the exception of that of Marsh. The deposition, therefore, of metallic arsenic upon copper, may be taken as the starting-point in our inquiry.

I deem it not unimportant to notice that I have sometimes encountered deposits on copper closely simulating in appearance that produced by arsenic, although not a particle of arsenious acid could be obtained by sublimation, nor any evidence of the presence of other metallic poison. On the other hand, the usual tin-grey metallic appearance of arsenic (when decisively precipitated upon copper) is often replaced by a black-coating quite destitute of metallic lustre.

With reference to the sublimate, afterwards obtained by heating the copper foil, I have to observe, that when its amount is very minute, although its apparently crystalline character can generally be recognised by a lens, or even by the naked eye, the precise figure of the crystal cannot be discerned with sufficient precision without the aid of a microscope of ordinary power. The octohedra are then observed with admirable definition, either perfect, or more frequently variously truncated on their terminal and base angles, and intermixed with a few tetrahedra.

Crusts, seemingly crystalline to the lens, are occasionally obtained from well-dried foil, apparently covered with arsenic, which on being submitted to the microscope prove to be either globules of fluid, or crystals not having the figure of arsenious acid, and devoid also of its chemical properties. The composition of the latter I have not as yet succeeded in determining. The globules of fluid are probably either water derived from a thin film of organic matter, which adheres, despite of washing and drying, to the copper (especially in operating on fluids previously submitted to the process of carbonization by sulphuric acid,) or hydrochloric acid, resulting from the partial decomposition of the sub-chloride of copper, which also attaches to the foil, and of which a portion sublimes as an amorphous crust, deposited in the tube beneath the true arsenical one.

I am satisfied from the foregoing considerations, that any who shall feel disposed to accept as evidence of arsenic a well-marked coating of the copper, together with the production of a brilliant, crystalline-looking sublimate, fall into a dangerous error. If, however, the crystalline *figures* above stated be observed with the microscope, they are so peculiar, constant, and well-defined, as of themselves to furnish, under the circumstances of their production, a strong presumption of the presence of arsenious acid. It is true that the latter compound is dimorphous; I believe, notwithstanding, that it is never obtained as a sublimate in medico-legal researches, in any but the octohedral form. Thus I have found that a solution of arsenite of ammonia yields, by spontaneous evaporation, silvery crystalline scales of arsenious acid, apparently similar to those described by Wöhler as referable to the

rhombic system. On heating these they sublime in the ordinary form.*

Few, however, who are conversant with the grave impossibilities of public medicine, will be content with obtaining the amount of evidence already considered : and hence the chemical properties of a solution of the sublimate are generally sought to be scrutinized, but in many cases, from its very trivial amount, with but indifferent success. Minute quantities, doubtless, when dissolved, will furnish an indication by the use of a single test, as the ammonio-nitrate of silver, or sulphuretted hydrogen. It would be, however, much more satisfactory to obtain, if possible, the conjoint evidence of *all* the fluid tests. The necessity for a method fulfilling the above indication having frequently forced itself upon me in practice, I have been led to propose the following procedure, by which a given quantity of arsenious acid may be transferred undiminished to each of the fluid tests in succession. As minute precautions in manipulation vitally affect the result, it may be premised, that want of success in the application of the fluid-tests to small sublimates, sometimes arises from not reducing the latter to powder before attempting their solution. The sublimate being carefully detached by a glass rod, aided by a fine stream of distilled water, should be received in a small porcelain mortar, and carefully triturated. The solution having been effected by boiling, should (1) be precipitated when cool, by ammonio-nitrate of silver. The yellow arsenite obtained is to be next decomposed by a slight excess of pure hydrochloric acid, and the filtered solution treated (2) by a current of sulphuretted hydrogen. Having ascertained the solubility of the resulting sulphuret in ammonia, it should now be dissolved in nitro-muriatic acid, and evaporated to dryness (avoiding excess of heat at the close,) redissolved and precipitated (3) by nitrate (or ammonio-nitrate) of silver, which yields the brick-red arseniate (4.) Finally, the latter being decomposed by hydrochloric acid, in minimum quantity, the filtrate should be heated with a few drops of an aqueous solution of sulphurous acid, the excess of the latter expelled, and hydrated oxide of copper, with ammonia, in minute quantity, added. We can thus elicit the reactions of the *four* fluid tests from a quantity of arsenious acid which would prove refractory by the common method of subdivision, and are hence enabled to ensure a satisfactory issue in difficult cases. The final step of the operation is not always successful, the ammonio-sulphate of copper being, even in experiments in larger quantities, a much less delicate test than those previously named. Having obtained, however, the antecedent results, the evidence of the presence of arsenic may be deemed complete. Modifications of the foregoing method will at once suggest themselves, and may be adopted at pleasure. It may occur to the instructed reader, that the success of the

* It is known that arsenite of ammonia cannot be obtained by evaporating its solution in the ordinary way ; and I have ascertained, by experiment, that the above crystals, from *spontaneous* evaporation, are destitute of ammonia, and have a *faint* acid reaction like that of opaque arsenic. The transparent acid will be found (as stated by Bussy) at *once* to redden litmus.

copper test might be secured by reprecipitation and sublimation of the arsenic subsequent to the formation of arseniate of silver ; as, however, there is reason to believe that no inconsiderable portion of the metal is often retained by the copper foil as an arseniuret, this procedure cannot be recommended. Such retention indeed constitutes a reason for assigning to the method of Marsh a superior delicacy, although, in a practical point of view, that of Reinsch is equal to all the emergencies of medico-legal experience.—*Med. Gaz.*

Unsuccessful attempt at poisoning with Pounded Glass.—We make the following extract of a letter from our intelligent correspondent, W. K. Bowling, M. D., of Adairville in this State, dated Oct. 15th, 1848.

“Mrs. C. of this village, in her attentions to her child 9 months of age, after a discharge from its bowels, discovered some particles of glass adhering to its nates. Becoming alarmed she sent for my partner, Dr. Poor, who, upon his arrival, had the feces washed, and procured more than a tea-spoonful of powdered glass. He gave the child a dose of castor oil, and superintended in person the washing of the discharges as long as any glass was found in them and procured by weight *eighty grains* ! The glass had been irregularly powdered and exhibited fragments of every size from a grain of wheat to the finest sand. The child showed not the slightest indisposition, and remains perfectly well up to the present time, (five days) since the last glass was discovered in its discharges.

I have thought this case worthy of preservation for two reasons : 1st. Because physicians rarely have an opportunity of witnessing the effect of pulverized glass upon the gastro-intestinal mucous membrane of man. 2d. Because the case appears to demonstrate that this substance does not exercise any deleterious influence.”—*West. Journ. of Med. and Surg.*

On an Effectual Antidote to Strychnia. By ISAAC PIDDUCK, M. D., London.—As an antidote to the poison of strychnia, camphor is effectual. The fourth part of a grain of strychnia (instead of the sixteenth, which had been prescribed for neuralgic pains) was taken by a weakly man. His muscles were convulsed with tetanic spasms. Five grains of camphor were dissolved in almond emulsion, and almost immediately after taking this dose the spasms ceased.

I am induced to send this communication in consequence of the fatal event which recently occurred near Romsey, and also of a distressing case at Edinburgh, in which the sufferings of the patient did not terminate until the influence of the poison was exhausted. In the former case, there was no opportunity for the administration of an antidote, for the patient was found dead by Mr. Taylor, the surgeon of Romsey ; but in the latter case the patient might have been more speedily relieved from the effects of an over-dose of strychnia. I may add that Dr. Anderson's case tends to confirm my statement of the efficacy of strychnia in the cure of certain forms of neuralgia, some cases of which I published in the Medical Gazette in 1840.—*London Lancet.*

Evidences of Poisoning by Prussic Acid.—Dr. W. Wright, of M'Gill College, British America, deduces the following inferences upon the different points connected with the above subject :—

I. *As to the State of the Eyes.*—1. That there is no constant state of the eyes. 2. That the eye-balls are generally prominent, glistening, and bright ; pupils dilated, and more or less insensible.

II. *State of the Countenance.*—1. The countenance may retain its natural appearance. 2. It may be pale and calm, as in sleep. 3. It may be livid, turgid, and distorted, with foam issuing from the mouth. 4. That this state is analogous to that observed in epilepsy, while that immediately preceding resembles asphyxia from carbonic acid.

III. *State of the Respiration.*—1. Respiration is variously affected, and may be (a) noiseless and tranquil, as in sleep ; (b) one or two gasps or inspirations ; (c) noisy and stertorous ; (d) convulsive and catching ; (e) slow and laborious. 2. That restoratives cause deep inspirations. 3. That owing to the above discrepancies, we cannot predict with certainty, that any specific change will be induced in the respiration by prussic acid.

IV. *State of the Pulse.*—1. That our knowledge of the effects of a fatal dose of prussic acid on the pulse is very imperfect, all that can be said is that it renders the pulse imperceptible.

V. *Consciousness.*—1. After a fatal dose, consciousness, reason, and intelligence, are retained for an interval of variable duration. 2. That this interval is usually short, and is succeeded by complete insensibility. 3. That the absence of delirium and mental hallucination are negative characteristics.

VI. *Acts of Volition.*—1. That a person after taking a fatal dose of prussic acid may retain, for a period, command over the voluntary muscles, sufficient to perform various and complicated actions.—2. That the duration of this period cannot be fixed. 3. That the powers of speech may not be immediately annihilated by a fatal dose, and it is not unlikely that they may be enjoyed as long as power and command over the voluntary muscles, generally, are maintained. 4. That, as in one instance, a rational answer was spoken by the victim, to a question three minutes after he had swallowed the fatal dose, so, *a fortiori*, the period, during which consciousness, volition, and motion are exertible, might be, possibly, of three minutes duration. 5. That, with this knowledge, we should be prepared to make allowances for the fulfilment of different intricate performances, in the interval of consciousness and muscular control, which follows the taking of poison. 6. Convulsions occurred in none of the cases cited above, it is, therefore, erroneous to connect them exclusively with those of slow death, or with those where subjects enjoyed more or less muscular control prior to death.

VII. *Of Sensation.*—1. That, with loss of consciousness, there is loss of sensation. 2. Prior to the occurrence of which, it is not unlikely that the feelings are not of a disagreeable nature. 3. That prussic acid produces some particular effect on the special senses, as

great bitterness of taste, and loud ringing in the ears. 4. That should restoratives be successful, sensation returns, accompanied with feelings more or less perverted, and varying from those of slight uneasiness to those of great agony. 5. That the property which prussic acid possesses of obliterating sensation, classes it among the anæsthetic agents.

VIII. *Of Motion.*—1. That the most important varieties of involuntary motion, observable after fatal doses of prussic acid have been swallowed, are—first, tonic spasm or tetanic rigidity; and, secondly, clonic spasms or convulsions, (epilepsy.) 2. That probably the tonic result from a major dose and greater susceptibility; and the clonic from a minor dose and less susceptibility. 3. That both, more especially from a maximum dose, may be absent. 4. That death is least rapid in cases of convulsions. 5. That convulsions may be succeeded by rigidity. 6. That rigidity may occur without convulsions, and that it usually appears on the departure of convulsions. 7. That the absence of convulsions is denoted by placidity of the countenance, non-clenching of the hands, natural posture, want of derangement of the clothes, and other marks of struggling. 8. The results from experiment on animals as regards convulsions, are not to be expected in the human subject, in whom convulsions are not constant but occasional symptoms.

IX. *Of the Odour.*—1. That the odour is not always present in the breath in cases of poisoning by prussic acid. 2. That if present, it may be questionable from—first, its weakness, which may be due to many causes; secondly, its being masked by other odours; and thirdly, from discords in the opinions of those testing it.

X. *Of the Shriek.*—1. That in man the absence of the shriek is the rule, its presence the exception. 2. It is not improbable that loud gasping inspirations have been mistaken for it. 3. That when it does occur, it is most likely a simple expression of terror, wherefore it might be present only in homicidal or accidental cases. 4. That it would be likely to occur in cases of epilepsy and convulsions.

XI. *The evacuation of the Rectum and Bladder* is an accidental, rather than an essential symptom.—*British American Journal.*

PATHOLOGY AND PRACTICE OF MEDICINE.

Directions relative to the prevention of and treatment of Cholera, (recently issued by the Royal College of Physicians of London.)—The Royal College of Physicians of London, feeling that, on the re-appearance of epidemic cholera in England, the public may naturally look to them for advice and guidance, have deemed it proper to appoint a cholera committee, composed of physicians who hold important offices in the metropolitan hospitals, or who had extensive experience of the disease at its last visitation, to consider what measures

it is expedient to adopt, with a view of preventing the spread of the disease, and of otherwise mitigating its evils.

The committee thus formed have, in compliance with the wish of the College, drawn up the following remarks and instructions, for the information of the public.

1st. Cholera appears to have been very rarely communicated by personal intercourse; and all attempts to stay its progress by cordons or quarantine have failed. From these circumstances, the committee, without expressing any positive opinion with respect to its contagious or non-contagious nature, agree in drawing this practical conclusion: that in a district where cholera prevails, no appreciable increase of danger is incurred by ministering to persons affected with it; and no safety afforded to the community by the isolation of the sick.

2d. The disease has almost invariably been most destructive in the dampest and filthiest parts of the towns it has visited. The committee would therefore urge on the public authorities the propriety of taking immediate steps to improve the state of sewers and drains; to cover those which are open; and to remove all collections of decaying vegetable and animal matter from the vicinity of dwellings. They would also impress on individuals, especially of the poorer classes, the great importance of well-airing their rooms, and of cleanliness in both their dwellings and persons.

3d. A state of debility or exhaustion, however produced, increases the liability to cholera. The committee therefore recommend all persons, during its prevalence, to live in the manner they have hitherto found most conducive to their health; avoiding intemperance of all kinds, and especially the intemperate use of ardent spirits and other intoxicating liquors. A sufficiency of nourishing food; warm clothing, and speedy change of damp garments; regular and sufficient sleep; and avoidance of excessive fatigue, of long fasting, and exposure to wet and cold, more particularly at night, are important means of promoting or maintaining good health, and thereby afford protection against the cholera.

The committee do not recommend that the public should abstain from the moderate use of well-cooked green vegetables, and of ripe or preserved fruits. A certain proportion of these articles of diet is, with most persons, necessary for the maintenance of health; and there is reason to fear, that if they be generally abstained from, now that the potato crop has in great measure failed, many persons, especially amongst the poor in large towns, will fall into that ill condition, which in its highest degree is known as scurvy, and that they will in consequence be the readier victims of cholera. The committee likewise think it not advisable to prohibit the use of pork or bacon; or of salted, dried, or smoked meat or fish; which have not been proved to exert any direct influence in causing this disease. Nothing promotes the spread of epidemic diseases so much as want of nourishment; and the poor will necessarily suffer this want, if they are led to abstain from those articles of food on which, from their comparative cheapness, they mainly depend for subsistence.

On the whole, the committee advise persons living in districts in which cholera prevails, to adhere to that plan of diet which they have generally found to agree with them; avoiding merely such articles of food as experience may have taught them to be likely to disorder the stomach and bowels.

4th. The committee are unable to recommend an uniform plan of treatment to be adopted by the public in all cases of looseness of the bowels, supposed to be premonitory of cholera. It is doubtless, very important that such ailments should be promptly attended to; but since they may arise from various causes, of which a medical man can alone judge, the committee deem it safer that persons affected with them should apply at once for medical assistance, than that they should indiscriminately use, of their own accord, or on the suggestion of unprofessional persons, powerful medicines, in large and frequently repeated doses. Should the looseness of the bowels be attended with feelings of great exhaustion and chilliness, the person should, of course, be placed in a warm bed, and the usual means of restoring warmth to the body be assiduously employed, until professional advice can be obtained.

5th. In order that the poor may have the means of obtaining such assistance promptly, the committee recommend that the proper authorities should at once establish dispensaries in those parts of the town which are remote from the existing medical institutions; and that they should also take steps to provide distinct cholera hospitals, which it will require some time to organize, and which they believe will be found to be absolutely necessary, should the epidemic prevail in this metropolis with a severity at all approaching that which it manifested on its first appearance in England. The committee wish it to be clearly understood, that they do not recommend the establishment of such cholera hospitals, on the ground of effecting the separation of the sick from the healthy, and of thus preventing the spread of the disease; but solely in order that, should the epidemic prove severe, proper attendance and prompt treatment may be ensured for the sufferers from cholera among the poorest and most destitute class. The existing hospitals, even if the authorities should consent to the admission of persons ill of cholera, could not furnish the requisite accommodation, unless they were shut against persons labouring under other severe diseases—a measure which, at the approach of winter especially, would add much to the distress of the poor.

6th. In conclusion, the committee would urge on the rich, who have comparatively little to fear for themselves, the great duty of generously and actively ministering to the relief of the poor, while the epidemic prevails; bearing in mind that fuel, and warm clothing, and sufficient nourishment, are powerful safeguards against the disease.

They deem it most desirable that the parish authorities should at once improve the diet, and increase the comforts, of the poor under their charge; and that the wealthy should form societies for the supply of food, clothing, and fuel, to those who, though not paupers, still need charitable assistance in the present emergency.

Such measures, which it is the duty of those possessed of power and wealth to adopt, would, the committee believe, if liberally carried out, deprive the cholera of half its victims.

JOHN AYRTON PARIS, President.

FRANCIS HAWKINS, Registrar.

College of Physicians, Oct. 28, 1848.

[*London Lancet.*

Clinical Observations upon Anæsthesia. By Dr. BEAU.—The object of this paper is to exhibit the fact that in certain forms of disease a condition of anæsthesia is present, which has hitherto for the most part escaped attention.

1. *Saturnine Intoxication.* Writers treating upon the deleterious influence exerted by lead upon the system, have noted anæsthesia as an occasional and rare occurrence in individuals who have been long exposed to its operation; and M. Tanquerel states that of 2160 persons suffering under various effects of lead disease, only eleven offered symptoms of deficiency of general insensibility. Nevertheless, anæsthesia is an habitual, if not an essential symptom of impregnation of the system by this metal. M. Beau's attention was at first accidentally directed to the subject, on observing an insensibility to feeling and to pain in other parts of his body. Trying the experiments upon other individuals similarly circumstanced, he found the same result,—pricking, pinching, &c. the surface exciting no sense of pain; and he has now investigated the fact in thirty cases, some being very slight examples of colic, &c. and others of very short duration.

In these cases there are, however, *two varieties* of anæsthesia, viz. insensibility to touch, and insensibility to pain, better termed *analgesia*. The first of these is by far the least common, having been met with in only four of the cases. It is, too, usually partial, extending only over a small portion of the surface; but it announces a far more serious lesion than analgesia. This last is *constantly* found in persons suffering from lead poisoning in any of its degrees. We must, however, not content ourselves with asking the patient whether he feels, but confine our question to the sensation of *pain*. Parts which are thus insensible to pain are so also to *tickling*. This form of anæsthesia may affect the entire surface, being however, most remarkable in the extremities, and especially the upper ones. It may extend even to the mucous membranes, and especially those which are normally endowed with great sensibility—as the uvula, isthmus faucium, nares, or conjunctiva—any of which parts may be tickled without the usual consequences, the patient being still quite conscious of the mere contact. The anæsthesia disappears as the cachectic colour is removed, and the appetite restored; with a slowness proportionate to the age of the patient, or to the severity of his disease. It has disappeared as soon as the sixth day after treatment, and at other times not until the twelfth or fifteenth. With this anæsthesia to excited pain, violent pain of a spontaneous character, as colics, &c. may exist.

2. *Hysteria*. M. Gendrin, in 1846, first stated anæsthesia to be a constant symptom in this disease ; but he did not distinguish between insensibility to pain and insensibility to touch, the latter being very rare, and only observed in very bad cases.

3. *Hypochondriasis*. Anæsthesia is to be observed also in this disease when well marked and of long standing. Besides the diseases mentioned, it will probably be found in *scorbutus* and *pellagra* (both of which not infrequently terminate in paralysis,) and in various other forms of colic besides that from lead. The *nervous delirium* of Dupuytren following traumatic affections is attended with this anæsthesia, and the insensibility to surgical operations manifested by some of the insane may be similarly explained ; and these views throw some light upon the ease with which religious fanatics have at different periods apparently borne the most horrible sufferings.

The above pathological considerations lead to the physiological separation of the sense of touch and of pain ; and this is susceptible of proof by experiment, for after a blow, cut, &c. the pain is distinctly posterior to the perception of the injuring body. "The sense of pain may, so to speak, be considered as annexed to that of touch, and thus is the first to disappear when the innervation does not possess its normal intensity. If the innervation is subjected to still farther diminution, then the sense of touch disappears in its turn, and the insensibility is complete. The object of the sensation of touch is to inform us of the presence of bodies in general, while that of pain has the no less important office of advertising us of the contact of disorganizing bodies." We may then say that there is a paralysis of the sense of pain, just as of the sense of touch, of the special senses, or of the motor powers.—*Archives Gén.*

Since publishing the above communication, M. Beau has found that *typhoid fever* may be added to the diseases accompanied with anæsthesia, which persists even during convalescence.

He has also remarked that *analgesia* in the various cases is more observable in the erect than in the recumbent posture, after exertion, e. g. mounting stairs, and indeed after any action, whether physical or mental, which produces a temporary diminution of strength.—*Brit. and For. Med. Chir. Rev. from Gaz. des Hôp.*

On Cerebral Congestion in relation to Hemorrhage and Ramollissement of the Brain. By M. DURAND FARDEL.—The object of this paper is to direct attention to the important part which congestion plays in inducing these conditions. Its influence may be sometimes judged of by premonitory symptoms, such as giddiness, singing in the ears, numbness of the limbs ; still, in 59 cases, 32 of acute ramollissement, and 27 of hemorrhage, the author only finds these recorded in 21. M. Rostan, to whom is due the first accounts of *ramollissement*, regarded the disease sometimes as an encephalitis, and sometimes as a peculiar degeneration analogous to senile gangrene, two very opposite conditions ; but the author, who has long had opportunities of observing it among the aged, maintains that in them also it is an encephala-

litis. In the dissection of 29 such cases which he has published, all the usual signs of congestion of the brain were observable. In the production of *cerebral hemorrhage*. Abercrombie and Bouillaud lay much stress upon the ossified condition of the vessels, and Rochoux regards it as proceeding from a special alteration, a hæmorrhagiparous ramollissement of the cerebral pulp. It is certain that a rarefaction rather than a ramollissement of this tissue does take place, and in almost all aged persons the meningeal vessels have become more friable; but mere diminution of cohesion of the cerebral fibre would never give rise to hemorrhage, and ramollissement may go through all its stages without doing so. So, too, when hemorrhage takes place earlier in life, changes in the vessels are not observed; and even later, such altered vessels are not to be followed into the substance of the brain, where the hemorrhage really takes place. A fluxion of blood to the part explains all the phenomena; and the author believes that the rigid bony canals in which the veins are placed, cause this organ to be freed of any surplus blood with difficulty. If congestion of the brain or encephalitis occur at an earlier period of life, there is usually some appreciable cause discoverable; but this is not so in old age, when they would seem rather to become developed under the influence of physiological modifications, independently of external circumstances. Life, as age approaches, seems to retreat from the periphery to the centre. First, the functions of the skin and of the senses diminish in activity, and the systems of voluntary motion and of organic life, the secretions and the digestive functions, die, or at least are gradually enfeebled. The lungs, the heart and the brain, alone preserve their physiological activity, and they alone become liable to disease; and thus it is that the aged die of affections of the lungs, or the brain.

M. Rochoux, in the discussion which followed the reading this paper, observed that he still adhered to the opinion he expressed in 1814, that in the great majority of cases of *apoplexy*, there are none of the so-called premonitory symptoms present; so, too, the great bulk of persons suffering from these, never become the subjects of apoplexy. A vast number of cases of apoplexy are on record, which occurred while the patient presented no circumstance indicative of congestion; and, on the other hand, various employments, the games of children, attacks of epilepsy, &c., give rise to great congestion without inducing it. M. Rochoux believes there is an imperceptible, organic, molecular change effected in more or less of the cerebral tissue, diminishing its power of cohesion and resistance, until, at last, unable to withstand the force of the circulating blood, it becomes torn, and the hemorrhage we term apoplexy is produced. The softening is just the same whether death takes place in an hour, or in several days, and must be regarded as precedent, not consecutive, to the effusion. This *hemorrhagiparous ramollissement* exerts nearly all the action attributed to all the other producing causes of apoplexy, including local or general congestion.

M. Baillarger observed that another consequence may be said to re-

sult more directly from congestion of the brain than these mentioned, viz. *general paralysis*. The patient on coming to himself, is found to have some embarrassment of speech, and gradually his intellect fails him. The anatomical changes in general paralysis have especial reference to the periphery of the brain, and we can easily conceive here the direct operation of repeated congestion. In hemorrhage and ramollissement, besides congestion, there must be some local lesion of the organ, which explains why one portion rather than another is attacked.—*Ibid*, from *Bulletin de l'Academie*.

Theory concerning the Cause of Diabetes.—At a meeting of the Academy of Medicine, M. Mialhe read a paper on Diabetes. The author assigns as a cause of saccharine urine, and the disorders consequent upon its secretion, a want of sufficient alkalinity in the fluids of the body. To him the cause of diabetes is not a peculiar agent which gives diabetic patients the faculty of transforming certain alimentary substances into sugar, which latter entering the torrent of the circulation is eliminated by the urine; but he maintains, first, that the transformation of amyloid substances into sugar is not peculiar to diabetic patients; that it is not an accidental phenomenon, but that it is, on the contrary, a necessary part of the digestion and assimilation of food. Secondly, that this transformation is brought about by the agency of a special ferment, which the author has discovered in the salivary glands of all animals, and which exercises a specific action on fæculent substances similar to the action of diastase (the active principle of malt) on starch, whence he calls this ferment *animal diastase*. Thirdly, amyloid substances must, in all animals, without exception, be converted into sugar under the influence of that animal diastase, in order to become fit for absorption and assimilation. But, says the author, what becomes of this sugar? It must participate in nutrition, and in order to do this it must suffer decomposition in the circulating fluids, for in the normal state it cannot be detected in any of the secretions. When it passes unaltered through the kidneys, it may be inferred that some powerful cause has prevented its decomposition, and thereby rendered it unfit for assimilation. This is, then, an abnormal and pathological occurrence which may be regarded as the consequence of the perturbation of another order of chemical phenomena; and this perturbation consists in a want of alkalinity in the fluids of the animal economy. Here the author, grounding himself on his former investigations relative to the digestion and assimilation of amyloid substances, draws the following inferences:—1. The alkalies normally contained in the blood and in the animal fluids are the principal agents of the digestion and the assimilation of saccharine and amyloid substances. 2. Starchy aliments are in all animals transformed into glucose by the agency of the animal diastase, whereby they become absorbable; this glucose, in order to become assimilable, is then transformed by the alkalies of the blood into new products, as kali-saccharic acid, formic acid, ulmin, &c.,

which bodies are all endowed with a very energetic disoxygenizing power, and probably destined to act as a counterpoise to the respiratory oxygenation. In a healthy subject, the usual alkalinity of the blood is amply sufficient for the transformation of the saccharine matter, but if this alkalinity be deficient, the transformation cannot take place; the sugar, being then neither decomposed nor assimilated, spreads itself over the economy, becomes a foreign body, and is, as such, cast off, not only by the kidneys, but by all secreting surfaces, and then we have diabetes. The cause of this affection may therefore be traced to a defective assimilation of the sugar, through a want of alkalinity in the animal economy. Human blood is naturally alkaline: we constantly introduce into our system acid elements, which would eventually predominate if they were not counterbalanced by especial secretions—viz., the perspiration and urine. So that a healthy man has one kind of secretion always yielding an acid reaction—viz., the perspiration and urine, and another kind, with alkaline properties—viz., the saliva, tears, and fæces. So long as these secretions retain their normal chemical nature, the due balance of acid and alkaline principles in the economy is kept up; if they all become acid, we, of course, conclude on a want of alkalinity, and *vice versa*. The former state may be brought on—1st, by the ingestion of acids themselves; 2d, by exclusively azotized food. Meats, owing to the albuminoid substances to be found in them, contain much sulphur and phosphorus, and those bodies generate sulphuric and phosphoric acids by their combustion within the economy. These agents get diffused through the fluids, saturate at first the alkaline bases they meet with, and at last predominate. 3d. The want of the perspiring action of the skin, which is intended to throw off acids from the economy. Thus I shall be able to show, says M. Mialhe, that by using means opposed to these three causes mentioned above, we can bring back the economy to its normal state, and excite in it a series of new phenomena. So that it appears possible—1st, to modify, as we please, the fluids effecting nutrition either in animals or vegetables, and obtain a proof of the reality of this modification by the examination of the secretions; 2d, to invert, by means of the food or medicines, the natural order of the assimilating functions, and thus give rise to new phenomena, which change the normal products of the organism; 3d, to control, on the other hand, the accidental disturbance of the organism, re-establish the integrity of its functions, and thus re-constitute life and health. By applying these consequences to the diabetic affection, the author proposes to restore the vitiated humours to their normal standard, and re-establish the natural order of the assimilating functions, by introducing into the economy the alkali which is wanting, and expelling the acids which predominate by the use of alkalies and sudorifics. When diabetes is produced by a prolonged ingestion of acid substances, unaccompanied by suppression of the perspiration or deep alterations of the organism, the cure by alkalies may, in some degree, be instantaneous. He cites the case of a gentleman who exhibited all the symptoms of diabetes,

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seemingly brought on by an excess of acidulated drinks during the hot summer of 1847. Five drachms of bicarbonate of soda, with seventy-five grains of calcined magnesia, and two and a half bottles of Vichy water per diem, sufficed to remove all the symptoms in eight or ten days.

Now we are ready to do justice to M. Mialhe's indefatigable zeal in organo-chemical investigations; but it must be confessed, that a single case is far from having sufficient weight for establishing a new theory. The author has the foible of most labourers in the field of physiological chemistry. He will needs consider the organism as a regular laboratory; for him the stomach is a still, the liver a filter, the lungs a furnace, and the skin an evaporating apparatus, &c. MM. Martin, Solon, Bussy, and Rayer, will report upon this paper, of which the above is but an abstract; they will inform us whether the proofs alleged are satisfactory, for hitherto we see but an ingenious grouping of assertions and deductions. We shall therefore recur to the subject, but cannot leave it without remarking with what facility and readiness M. Mialhe harmonizes chemical effects. For instance: when speaking of the new products resulting from the action of alkalis upon the sugar, he mentions that these products are highly disoxygenizing, and immediately adds, that they, according to all probability, serve as a counterpoise to the respiratory oxidation. This appears rather a hasty conclusion. Another passage, which is strongly indicative of the exclusiveness of the author's chemical views, is that wherein he mentions the development of sulphuric and phosphoric acids, attributed to the ingestion of phosphorus and sulphur in meat. These acids, according to him, gradually saturate the alkaline bases in the fluids, and finally predominate. Here, again, we have a chemical reaction, which is simple and natural enough out of the body, assumed as taking place, just in the same way, in the mysterious recesses of our capillaries. Sir James Murray regards the human frame as a Leyden jar; Dr. Parkin, as a gasometer; M. Mialhe, as a laboratory! The humorists, solidists, mechanists, and chemists of old were hardly more wedded to peculiar views.—*London Lancet*.

Use of Chloroform in Insanity. By Dr. M'GAVIN.—The importance of the subject induces us to give entire the following remarks on cases in the Montrose Lunatic Asylum:—The introduction of Chloroform immediately after the nature of this wonderful agent became known, has constituted the only known feature in what may be styled the purely medical part of the treatment. Its beneficial effects have been conspicuous in many cases in which it has been used during the latter part of the last year. The first two patients selected for experiment with the chloroform, were the most noisy and excited in the establishment. One laboured under acute mania; the other was a decided melancholic. In the first case, all the ordinary and approved means for calming excitement and allaying irritability had been, for two or three days, steadily

persevered in without much benefit. It then occurred to me that chloroform might be tried. The patient was accordingly secured, which, by the way, was not a very easy task, and the inhalation commenced. The first inspiration was succeeded by a struggle; but this resulted more from dread on the part of the patient that some mischief was to befall him than from any other cause. After a few more inspirations, he complained of sickness; and in less than a minute and a half from the commencement of the inhalation, the functions of the brain were completely suspended. He remained in the comatose state for a minute or two after the withdrawal of the vapour. While recovering from his state of unconsciousness, he looked confused, and reeled about the room like a person under the influence of some intoxicating liquor. In a short time he completely recovered from the immediate effects of the chloroform, but its soothing influence was conspicuous for the greater part of the day. He became drowsy—slept a short time—and was afterwards less excited, and more collected and rational than he had been since his admission. The chloroform was exhibited from time to time in this case, and sleep almost invariably followed. The patient ultimately got better. The second patient operated on was a woman possessed of a strong suicidal tendency, who had been moaning and crying incessantly for days and nights without intermission. She had not been observed to sleep for nearly seventy-two hours. The chloroform was exhibited in the usual way, and very soon reduced her to a state of unconsciousness. On recovering, she complained of sickness, and vomited; after which she was, at her own request, placed in bed, where she enjoyed a sound and refreshing sleep for upwards of three hours. So sensible was this patient of the benefit she derived from the chloroform, that, when afterwards agitated and overwhelmed with despair, she would implore the medical superintendent to repeat the exhibition. In this she was repeatedly indulged. In the first case alluded to, I have very little doubt that the chloroform had a considerable share in conducing to recovery, or at least that it paved the way by suspending the functions of the brain, and thus affording rest to its substance. No doubt the same thing is accomplished in similar cases, and might have followed in this case also, by the exhibition of sedatives and hypnotics; but before sleep is procured in this way, days and weeks sometimes intervene. The rapidity with which the chloroform acts, and the consequent saving of time to the physician, and of nervous energy to the patient, are strong arguments in its favour. It is difficult to say, *a priori*, how far the prolonged exhibition of chloroform may be useful in correcting morbid trains of thought in cases of insanity unattended with excitement. Experiments, with a view to the solution of this question, could not but prove interesting.—*Dublin Medical Press, from Monthly Journal.*

Intra-Uterine Peritonitis in the Fœtus.—Dr. SIMPSON exhibited at the meeting of the Edinburgh Obstetrical Society a fœtus, which had evidently laboured under peritonitis, as was evidenced by the effusion of lymph on various parts of the peritoneum. He believed that the disease was more frequent than is suspected, as he had discovered its traces in

many fetuses which had died in the seventh or eighth month of utero-gestation.—*Monthly Journal*.

Observations on Collodion in the treatment of Diseases of the Skin.

By ERASMUS WILSON, Esq., F. R. S.—It is now about four months since a solution of gun-cotton in sulphuric ether (collodion) was placed in my hands by Messrs. Bell, of Oxford-street, and since I first proceeded to employ it in the treatment of cutaneous diseases. I was at that time much interested in the medical progress of a young lady (the daughter of a physician in the west of England) who had been suffering for many years with scrofulous ulceration of the skin in various parts of the body. She had been under my care for several months, and the sores were much improved, but they were nevertheless very far from being healed. The diseased skin had the appearance of being worm-eaten, its hollows were filled with pus, which burrowed under the surface, and it was moreover thickened and congested. By the constitutional treatment which I had pursued, I had, to a considerable degree, corrected the pyogenic tendency of her system; but I felt the want of a local remedy that would serve as an impermeable covering to the surface—in fact, take the place of the lost epidermis, and act the part of an artificial scarf-skin. I had tried vulcanized caoutchouc spread with adhesive plaster, gutta percha, nitrate of silver, astringent solutions, ointments, and pressure by bandage, in vain—the remedy was not as yet found. I was revolving this difficulty in my mind when the collodion was put into my hand. The bearer of the little bottle may remember my exclamation that “that was exactly the thing I wanted.”

On the next visit of my patient, I removed the dressings from the sores, and pencilled them over with the new agent, which covered the surface with a powerfully adhesive film, of about the thickness of gold-beater's skin, and effectually represented the lost scarf-skin. A piece of dry, soft linen was the only additional covering required, and she left me, much delighted at the abandonment of the local applications and bandages. This young lady has since continued to apply the collodion herself, night and morning, until the present time, when the sores are nearly well, and the congestion and scrofulous thickening of the skin almost gone.

From careful observation of the effects of the collodion in this case, I found it to possess four important properties—namely,

First. That of a mild stimulant.

Second. That of an efficient substitute for the natural scarf-skin.

Third. That of a mechanical compress.

Fourth. That of an adhesive glue, from which quality it derives its name.

First. As a mild stimulant, it is fitted to exert a local alternative action on the congested capillaries of a chronic ulceration, and give activity to the healing process.

Second. In its character of a substitute for the absent scarf-skin, it

is transparent, pliant, and more or less impermeable, according to the thickness of the layer that may seem to be required.

Third. Its most remarkable property, as it seems to me, is the contraction which occurs during the dessication of the collodion, and which produces a local pressure of considerable power on the surface to which it is applied. Thus, in the case above related, the congestion of the thickened skin was relieved by the varnish-like film of collodion spread upon its surface, by means of a camel-hair brush, as completely as if a nicely-adjusted bandage had been placed over it. In another instance, I found a film of collodion entirely remove a purple congestion (resulting from imperfect circulation) from the tip of the nose, in a lady who had long suffered from the annoyance. In a third case, in which the fingers of an elderly lady were congested and blue, and the congestion was attended by pain and throbbing, like that which accompanies chilblains, the collodion produced so much contraction as to render their tips white and bloodless, and I was obliged to discontinue the application in consequence.

Fourthly. The glue-like property of the collodion is evinced in its adhesion of cut surfaces, a property which is much increased by the contraction above mentioned. When employed with the purpose of keeping together the edges of an incision, a piece of cambric or thin linen rag should be dipped in the solution, and placed along the line of incision, after the cut edges have been adjusted and carefully dried, perfect dryness of the skin being a necessary condition to the adhesion of the solution. From the rapidity with which the solution dries, and its perfect adhesive powers, collodion is likely to occupy an important place among the "adjuvantia" of surgical practice.

The diseases of the skin in which I have hitherto used the collodion with advantage are, chronic erythema of the face; intertrigo; chapped nipples and chapped hands; herpes labialis, preputialis, and herpes zoster; lichen agrius; lupus non exedens and exedens; acne vulgaris; and several affections of the sebiparous organs. In chronic erythema of the face, its contracting power was most usefully evinced, as it was also in lupus non-exedens, and acne.

In a troublesome case of chapped hands and fingers, resulting from chronic lichen agrius, the collodion acted not merely as a protective covering, but also promoted the healing of the cracks more quickly than the remedies I have been in the habit of employing. In chapped nipples, it was even more efficient in its protective and curative action, and seemed, in the two instances in which I used it, to work a charm upon the painful skin. The gaping cracks were instantly drawn together and almost obliterated by the contracting power of the remedy, and were effectually shielded from the influence of moisture and the pressure of the gums of the infant, and all this, in consequence of the rapid evaporation of the ether, in an instant of time. In another point of view the remedy is invaluable as an application to chapped nipples—namely, as being in nowise injurious to the infant, from offering nothing which can be removed by the lips during the act of sucking, and in this particular, therefore, possessing a vast superiority over the various forms of ointments, astringent lotions, &c.

In four instances, it immediately put a stop to herpes labialis, and in a very severe attack, it showed itself to be a powerful and useful remedy. Small superficial ulcerations of the corona glandis and prepuce, caused by excoriation, it acted admirably as a prophylactic. From the success of the latter trial, I am inclined to think that it might be usefully employed as a prophylactic, in cases of exposure to syphilitic contagion.

When properly applied, the collodion enters all the crevices of the lines of motion of the skin, and adheres so firmly as to require several washings for its removal. As it is usually prepared, it has the consistence of syrup, and in this state is best suited for those cases in which its adhesive properties are principally needed. Where, however, it is intended to be applied to the surface of an ulcer or abrasion, or to chaps of the skin, I find it convenient to dilute it with ether, and render it almost as limpid as water.

In pursuing this subject, I have made trial of a solution of gutta percha in chloroform, and also in benzole, but these solutions are very inferior to the collodion, for the purposes above named. Their adhesive powers are weaker than the collodion, and the layer which they form when painted on the skin, is apt to rise at the edges, and rub off.—*London Lancet*.

Cure of Cancers.—In the summer of 1847, when travelling in Western Virginia, we gave an account of the (apparently) permanent cure, by the application of some kind of caustic, to the breast of a lady, which had been regarded as affected with fungus hæmatodes. Eight months had then elapsed and the new integuments appeared perfectly sound. The caustic was applied by a physician of Galliopolis.

The account of this case having been seen by the friends of a lady of this city, whose right breast was in a state of schirrus advancing to ulceration, she determined to place herself in the care of a Cincinnati partner of the Galliopolis practitioner. In five or six weeks, his applications had caused an entire sloughing of the gland, and complete cicatrization followed. On the lapse of a few months, however, the new integuments assumed a well marked carcinomatous aspect, and at this time are in a state of cancerous ulceration. The disease is, also, advancing in the other breast, and the arm of the originally affected side, is in a semi-œdematous condition, and the seat of a great deal of pain. Having, by the publication of the other case, given a sort of currency to the practice by which it was cured, we consider it a duty to make known the failure of the same method in this case; in doing which we feel bound to add that there was probably a mistake in the diagnosis of the first case, which might not have been of a malignant character.—*The Western Journal of Medicine and Surgery*.

MATERIA MEDICA AND THERAPEUTICS.

On the Narcotic Poisons, particularly Opium, and their Antidotes.
By FRANCIS SIBSON.—It is my object in this, and the following papers on the same subject, to develop the results of an inquiry into the therapeutics of poisoning by narcotics, and more particularly by opium. That the most proper means of treating such cases are as yet either not agreed upon, or not generally known, is evidenced by the great variety of practice, and the frequent want of success in their treatment. The importance of the inquiry is shown by the very great number of persons that annually fall victims to poisoning by narcotics, especially by opium.

In the years 1837–1838 the deaths by poisoning amounted to	543
Of these, the total number poisoned by opium, laudanum, morphia, and opiate cordials, were	198
A number greater than that by arsenic	185
Poisoned by other narcotics	44
viz., by Prussic acid	27
Oil of bitter almonds	4
Nux vomica	3
Strychnia	2
Belladonna	2
Carburetted hydrogen	2
Hemlock, monkshood, wolfsbane, and gin, of each 1	4

These returns (Medical Gazette, xxv. 284, and Taylor on Poisons, 186) show that the largest proportion of cases of poisoning in this country are by opium, exceeding even those by arsenic.

There can be no doubt, as Mr. Taylor remarks, that the number of deaths from poisons which annually occur in England and Wales are much greater than this table represents.

I may add, that this remark, applicable to all kinds of poisoning, is especially applicable to poisoning by opium, that drug being used so extensively by the ignorant, and acting so silently, and with so many of the appearances of natural death. The extent to which this is so, may be surmised from the fact, that of the 198 cases poisoned by opium, 106 were either from overdose or by mistake; 64 of the remainder being suicidal, and in 3 only was it “wilfully administered.” So long as this is the only country in Europe where the sale of poisons is indiscriminate, we must expect that the number of persons poisoned by opium will be immeasurably greater in this country than in any other.

Since opium is the preponderating cause of death from narcotic poisoning in this country, I shall devote the chief portion of these papers to an inquiry into the action of opium as a poison, with the view of ascertaining the best means of averting its poisonous and fatal effects.

On the local action of opium.—Before endeavouring to ascertain the action of opium on the complicated human organism, I shall inquire into the evidences of its local action on separate portions of the animal organism.

During the last century, especially towards the latter part of it, many of the great physiologists of that day busied themselves with this very question, of the local action of opium and other agents. Amongst these were Whytt, Monro, Fontana, Alston, Valli, and Humboldt.

The numerous experiments and observations of Humboldt (*Annals of Medicine*, iv. 223-271) convinced him that opium, like other stimuli, exhausts only in consequence of excessive excitation. He exposed muscle shortly after its removal from the living frog to oxymuriatic acid: the effect was first to stimulate, and then to exhaust muscular contractility. This exhaustion may be removed, he found, by opium, which re-excites and then again exhausts contractility.

“This exhaustion may be removed, (he found) by oxymuriatic acid or oxide of arsenic, while opium also is capable of removing the inexcitability produced by them” p. 272. I ought to state that these are the words employed in the copious abstract of Humboldt’s work in the *Annals*—the previous details being inferred, rather than actually extracted, from the statements in that abstract.

From the observations, then, of Humboldt, and of Michaelis quoted by him, we may infer that the action of opium on the direct application of it either to nervous or muscular tissue, is first to augment, and then to exhaust their excitability.

These inferences are corroborated by the more recent experiments of Dr. Wilson Philip (on the *Vital Functions*, 133,) who observed, that when opium or tobacco are applied in very small quantity to a muscle, they tend to excite muscular action; in larger quantity they immediately destroy the muscular power. They produce these effects in the hollow muscles, as the heart and the intestines, chiefly when applied to their internal surfaces. They produce the same effect when applied locally to either the nervous or the sanguiferous systems.

In all these cases the stimulant effect of the opium is more considerable than that of the tobacco, and the sedative effect of the latter is more considerable than that of the former.

These observations of Dr. Wilson Philip differ in this respect from those of Humboldt, that while the latter noticed that opium first stimulates, and then exhausts excitability, the former noticed that the application of a small quantity of the poison immediately excites, whilst that of a large quantity immediately exhausts excitability. He does not state that the opium first excites and then exhausts.

Humboldt’s and Wilson Philip’s experiments taken together, illustrate the whole question, first in the application of a small quantity or dose—that is, in a therapeutical point of view—a small dose of opium being a true stimulant, as Sydenham said, almost the only true stimulant; while the application of a large quantity or dose exhibits the poisonous action.

Humboldt's experiments show that these two opposite actions are not really opposed to, but are dependent upon, and consecutive to, each other; and that, when the application of a large quantity of opium appeared to be immediately followed by exhaustion, that exhaustion was in reality preceded by the excitation, just as lightning in destroying vital contractility, primarily and violently excites it.

Valli (on Animal Electricity, 73) was much puzzled on finding that when he applied opium to the isolated tibial nerve of a frog, the excitability of the muscles of the leg was in some experiments destroyed, and in others increased. These experiments are explained by those of Humboldt and Wilson Philip. The cases in which excitability was increased were evidently in the earlier stages, and those in which it was destroyed in the latter stages of the action of the opium.

The great experimenters before alluded to, afford ample and interesting illustration of the local effect of opium in destroying excitability.

Whytt immersed the heart, still pulsating, of a frog in water, and another pulsating heart in a watery solution of opium. The heart in the watery solution ceased to pulsate before the heart in water.

In ten minutes both hearts were taken out: they were then motionless. That which had been in the watery solution of opium could not be stimulated to contract, and it never moved again; that which had been in water could be stimulated to contract—and in a few minutes it of itself resumed its pulsation. (Physical Essays, vol. ii.)

Monro poured ten drops of a watery solution of opium underneath the skin among the muscles of the left thigh. After ten minutes that leg seemed to be weaker, and in ten minutes more the muscles lost their power, and the toes had little sensibility: the animal seemed now to be a great deal stupified, and its heart gave now only 25 strokes in a minute. An hour and a half after the beginning of the experiment, the toes seemed to have quite lost their sensibility, and the muscles their motion; but the animal jumped by the help of the other hind extremity. Two days thereafter this leg had recovered its sense and motion, and the animal seemed quite well. (Physical Essays, xiv. 827.) Fontana says, (on Poisons, ii. 364,) "I plunged half the body of a leech into a watery solution of opium, and found in a little time that this part had lost all motion, whilst the other half continued in action. I looked upon it as something very extraordinary, that one half of the creature should become dead, whilst the other half continued in the state of not having undergone any change or suffered any injury."

The interesting experiments detailed above, prove that almost every and any organ of the body may be affected by the local action of opium; and that the organ affected by it has its excitability first increased, and then exhausted.

If the poison be applied to the voluntary muscles, or to the heart or intestines, the muscular contractility is first excited, and then exhausted. If it be applied to the individual nerves, or to the whole limb, sensation and motion are first excited, and then paralysed.

There is now no occasion to bring forward proof that the narcotic poisons as well as all other soluble substances, when received into the stomach or into the rectum, and in some animals, and with some agents when applied to the skin, pass into the circulation.

As the opium enters the blood when it acts upon the system, it necessarily follows that the opium admitted into the circulation is carried with the blood to every organ and portion of the frame. Every part of the organism is subjected to the immediate and characteristic influence of the poison; and as Whytt says, opium destroys by rendering the several organs insensible to the stimuli destined by nature to excite them.

As the opium when admitted into the system is first diffused through and applied to the whole circulating apparatus, I shall first inquire into the effect of opium on the circulation in the capillaries, arteries, and veins.

The effect of opium on the circulation.—Dr. Allston, that he might observe the effect of opium on the circulation in frogs, performed the following beautiful experiments, which he thus details:—

“(a) In the physic garden at Holyrood House, I one evening put a strong big paddock into a pot of water, wherein a small quantity of opium was dissolved; it soon appeared uneasy, by making strong efforts to get out of it, but in a short time it flagged or grew dull, making very little motion, and next morning it was dead, and much swelled.” This experiment proves that opium can enter the circulation through the integuments, and so destroy life. This had not hitherto, I believe, been demonstrated.

“(β) Assisted by Mr. Robert Fullerton, a curious gentleman, and very dexterous in microscopical observation, (in August, 1733,) I conveyed through a small glass tube, a few drops of a solution of opium in water into a frog’s stomach, and putting the animal into a glass cylinder, adapted it so to a good microscope that we had a distinct view of a part of the membrane betwixt the toes of its hinder foot, where the circulation of blood may easily be seen. My design was, since I found opium killed frogs, to observe if there was any visible change made by it in the blood itself, or in its motion; neither of us could, indeed, see any alteration in the blood as to its consistence, colour of the serum, magnitude, figure or colour of the red globules; but we very distinctly saw a surprising diminution of the blood’s velocity; for it did not move half so swiftly as it used to do in these creatures. We alternately looked at it again and again, and in less than half an hour saw the velocity of the blood gradually increase, the uneasy frog recover its wonted vigour, and the blood its common celerity; upon which we took out the paddock, put it in a bason of clean water, and allowed it half an hour to refresh itself—then gave it another dose of opium—fixed it to the microscope with all expedition—and viewed it as before. The blood then moved, yet slower than it did the first time, and, its velocity gradually decreasing, at length it stagnated, first in the smaller, then in the larger vessels, and in about a quarter of an hour the animal expired.

“One thing was very observable all along—viz. that notwithstanding the diminished velocity of the blood, there was no sensible diminution of the frequency of the pulse: yea, when there was no circulation or progressive motion of the blood in this part, the pulse was visible by an undulatory motion—that is, the blood returned as far back at every diastole of the heart as it was protruded by the preceding systole: this continued too, till the frog was quite dead, or at least appeared to be so. When we had lost all hope of its recovery, I opened it, and found nothing in its stomach but a clear mucus like a jelly, a little coloured with the opium of which it was full: everything else seemed perfectly natural. This experiment we frequently repeated, and it had always the same appearance and event. The recovery, however, of one of the frogs which for a considerable time seemed to be dead, is not to be omitted. My friend and I one evening killed, as before, a couple of frogs with opium: one of them, which was the strongest, I laid half in water on a tile in the bottom of the water-pot, that if it recovered it might sit either wet or dry as it liked best; the other I left on the earth, dry, under a hedge. Next morning when I returned to the garden, I found the one under the hedge dead, as I left it; but the other in the water-pot was alive, and appeared to be in perfect health.” (Medical Essays, v. 130.)

These two very interesting experiments, which for their real illustrative value, in elucidating the action of opium on the system, as well as for their historical interest, are well worth repeating here, I combined into one experiment, which I devised in the following manner. The experiment is easily performed:—

Experiment.—I attached a frog to Mr. Goadby's frog-holder, so that either web could be placed under the microscope. I plunged the left leg into a test-tube containing a watery solution of opium—the right leg into one containing water. The tubes were so arranged, that they could be withdrawn, and either web be placed under the microscope without disturbing the frog.

Before the immersion of the left leg into the solution of opium, the circulation was very rapid: the corpuscles in the arteries shot past so rapidly that they could scarcely be distinguished. Those in the veins and the large capillaries moved rapidly, while those in the small capillaries moved slowly.

After the left leg had been immersed in the solution of opium for ten minutes, the motion of the blood in the smaller capillaries of that leg was quickened, and the blood circulated through many capillaries previously devoid of corpuscles. The movement of the blood in the artery and vein was less rapid. The circulation in the right leg was not altered.

After a further immersion of ten minutes the circulation in the left leg was further modified, that in the right leg being not perceptibly changed.

After the left leg had been replaced for half an hour, the frog was again observed. Whenever the skin was touched, either on the *left* or *right* leg, the frog cried out in a peculiar manner, the creature

being universally convulsed. The skin was touched repeatedly, and in rapid succession, with the effect of producing convulsions, which became less and less strong each time they were excited. At length the convulsions could be no longer excited by touching the left leg, and after a time they ceased also to be excitable in the right leg. After a little rest the convulsions could again be excited.

The left leg was swollen, being evidently more vascular than the right.

The capillaries in the left leg were now much enlarged, several corpuscles moving slowly, side by side, through capillaries that were previously empty. The blood moved much more slowly both in the arteries and in the veins.

The circulation in the right leg was now very perceptibly modified, and, as nearly as it could be observed, to the same extent as that in the left leg was affected after being immersed in the solution of opium for ten minutes.

After a re-immersion for an hour and a half, quick feeble tetanic spasms of both limbs were excited by the slightest motion—by walking across the room, or touching the microscope, or by touching the skin of either leg. These convulsions ceased when the legs were touched alternately and in rapid succession; the left leg first lost its excitability, and then the right. The convulsive motions were the least in the left leg.

It was found during the last observation that the animal was quite unconscious, and had ceased to breathe.

The capillaries were now very much enlarged in the left leg, being greatly distended and almost blocked up with the accumulation of blood corpuscles, the motion of which was but just perceptible. The movement of the blood in the arteries and veins was exceedingly sluggish. The right leg was similarly affected, but the capillaries were not so much distended, and the circulation was not so slow, as they were in the left leg.

The circulation became progressively slower, and convulsions were no longer excitable. About four hours after the first immersion in opium the heart was exposed, pulsating slowly, emptying itself on each contraction, and receiving and sending out but little blood. After the heart was cut out, the movement of the blood in both webs continued, though it was very sluggish, and in the left leg was only observed in the large artery and vein.—*London Medical Gazette*.

Note on a Camphor and Chloroform Mixture. By T. and H. SMITH, Chemists, Edinburgh.—The great difficulty, or rather the utter impossibility, of administering camphor in a state of solution in doses of sufficient potency, has been long felt by the profession to be a serious evil. The form of pill, which forces itself on the physician as the only mode of giving large doses of this medicine, is objectionable in many cases, and in others altogether inadmissible. The camphor, being merely in a state of mechanical division, on being set free in the stomach, from its extreme lightness quickly separates

and floats about, thus producing in many cases much local irritation in that organ, instead of soothing or arousing the general system.

We have, therefore, much pleasure in laying before the readers of the *Monthly Journal* a formula for exhibiting camphor in doses of almost any amount of strength—certainly as large as any case can require—and that in a state of perfect solution: thereby allowing of a nice adaptation of the dose to the circumstances of each case.

The formula is as follows:—Three drachms of solid camphor are dissolved in one fluid drachm of chloroform. This is, perhaps, one of the most remarkable cases of solution the whole range of chemistry presents to us. The solution is most *rapid and complete*, and the bulk of the liquid is now increased from one to fully four fluid drachms. This solution, rubbed up with the *yolk* of one fresh egg, may be formed into an extremely elegant emulsion by the addition of water, without the slightest separation of the camphor or chloroform; in fact, no separation of any kind takes place. If to the proportions given above, as much water be added as to make a four-ounce mixture, each teaspoonful of the mixture when formed will contain about five and a half grains of camphor, and about two minims of chloroform. The capability of the formula being varied, so that either the camphor or chloroform may constitute the predominating ingredient, must be quite obvious. This mixture can be administered in any ordinary vehicle, such as water, without the occurrence of any separation; indeed, the mixture is as readily and completely effected as cream with tea or coffee. We have tried the effect of several medicinal substances on the mixture. With none of them has any separation been caused.

A weak saline solution, composed of common salt, phosphate of soda, and an alkaline carbonate, mixed readily, as well as a solution of muriate of morphia and sulphate of zinc. With the volatile alkali and acid liquids—such as a weak solution of acetic and muriatic acids—the mixture seems to become more intimate and stable. The mixture with ammonia has stood since its preparation—now fully a week—without any separation. With water alone, however, the chloroform solution of camphor separates in a few days, but they readily unite again when slightly agitated. The solution of camphor in chloroform, although insoluble in water alone, appears in this mixture to be in as complete a state of mixture as the butter in milk when newly drawn from the cow.

It now remains with the physician to ascertain the therapeutic value of the formula. We hope that by its means our knowledge of the action of camphor as a remedial agent may become more full and precise than hitherto.—*Retrospect of the Medical Sciences.*

Carbonate of Ammonia in Squamous Affections of the Skin. By M. CAZENAVE.—In psoriasis, and other scaly diseases of the skin, M. Cazenave has obtained considerable benefit from the internal employment of this remedy. He gives it in the form of syrup, in doses of from 6 to 30 grains daily. The physiological effects are,

complete anorexia, general debility, rapid emaciation, occasional diarrhœa, and some febrile excitement of the pulse; the countenance becomes paler. Some patients were obliged to discontinue the use of the drug, on account of the severity of these symptoms.—*Monthly Journal from, Gaz. des Hôp.*, Sept. 14.

Tolerance of Opium.—Mr. Godfrey, (of Bristol,) narrated two cases at present under his care, illustrative of the large doses of opium that can be borne without narcotism. In one the lady swallowed frequently forty grains of opium within the day; in the other, the patient who for years had been subject to violent neurotic attacks, often took within the day sixty grains of the acetate of morphia.

Mr. Norman some years ago had a gentleman who suffered from senile gangrene, from which he recovered; he then took opium, and subsequently took a wineglassful of laudanum regularly twice a-day. He obtained from Apothecaries' Hall twenty drachms of opium, which after cutting up he macerated for above a month in a quart of brandy; of this tincture he took two glasses a-day, without any further sensible effect than to exhilarate his spirits. While taking this, on two occasions constipation came on, with imminent risk to his life. After the second attack, he at once left off all his opium, and lived four or five years afterwards, dying eventually of disease of the brain.

Dr. Blackmore had known four hundred grains taken in one day, without narcotism being produced.—*Prov. Med. and Surg. Journ.*

The use of Iron as a Prophylactic against Cholera.—I wish to suggest to those exposed to the influence of cholera, the internal use of iron as a prophylactic.

I conjecture that when the blood is well impregnated with iron, it is rendered less prone to undergo the morbid change in which many epidemic diseases primarily consist. The experience of an individual is insufficient to put this conjecture to the test; and as regards cholera, I have not even that experience to offer. During the prevalence of Irish fever, I believe I did obtain a little negative evidence in support of my opinion, but not nearly sufficient to establish it.

Taken in the form of pill along with solid food, iron scarcely ever disagrees, provided neither fever nor active inflammation be present. Any one disposed to try it against the contagion—for such I believe it—of cholera, will find a grain or two of the sulphate, made into a pill, with extract of gentian, to be taken during, or immediately after, each of the principal meals, a convenient method.—M. D.—*Lancet.*

Of Digitaline; its Physiological and Therapeutical action. By DR. HERVIEUX.—Digitaline has enjoyed this uncommon advantage,—that the experiments which it has, in various countries, been submitted to, have led to similar results. M. H. relates twelve cases in which this medicine was exhibited by M. Royer, and the results ob-

served confirm fully the data furnished by the remarks of other physicians. Employed in doses of 1-10th, 1-5th, and even 1-4th of a grain, this medicine caused neither nausea nor repugnance; neither did it occasion borborygmi, colics, or diarrhœa. In all cases the pulse fell in a very marked manner. The average of its diminution was from 22 to 36 pulsations in one minute. The action of the medicine upon the circulation began to be appreciable after two or three hours, but attained its maximum only after one, and sometimes two weeks. With regard to the action of digitaline upon the urinary organs, M. H. observed, that although the urinary secretion was not constantly increased in quantity, in all cases vesical tenesmus was present. The patient to whom the medicine was given experienced considerable benefit from its use. The dyspnœa—congestion of the face and headache, so frequently met with in disease of the heart, were greatly alleviated; and, in two cases of pulmonary disease, considerable improvement was also obtained,—a fact attributable to the diminution of the frequency of the pulse.—*London Med. Times, from Gaz. Med.*

SURGERY.

Compound Fracture and Dislocation of the Astragalus.—Mr. Faircloth detailed the following case of this accident:

Ephraim Scott, a lad in a racing stable at Newmarket, of ordinary stature, quiet disposition, with brown hair and eyes, aged fourteen years, had always enjoyed good health, and had had no serious illness except measles. Saturday, May 3d, was riding a young and vicious horse in the paddock; the animal reared until it overbalanced itself, and fell back, rolling over on its right side. The boy came down on his right side, shoulder and hip; his right leg extended forward, received the horse's neck across the knee, whilst the left still entangled in the stirrup, projected backwards and under the horse's right flank and hip. Except as regarded this limb, he escaped with a few trifling bruises, but the left ankle presented the following appearance:—Before the shoe-lace and the stocking were removed, a large projection on the outer side of the joint and some arterial oozing; when uncovered, the bones were seen projecting through a semilunar wound, at least four inches long. The astragalus was dislocated from its connection with the os calcis, and this articulating surface turned outwards through the lips of the wound. The bone was not separated from its attachments to the tibia and fibula, nor from the scaphoid anteriorly, but to allow the bone to turn half round as above described, the neck had given way transversely. Both the anterior portion of bone, which remained *in situ*, attached to the scaphoid, and the other large portion, were chipped or broken more or less.

Treatment.—After a very careful examination of the parts, the foot, the vessels, and the boy's state generally, it was resolved to try and

save the limb. The dislocated portion of the astragalus, (amounting to four-fifths of the whole of that bone,) was carefully detached from the tibia and fibula and these bones let down upon the calcis. The edges of the wound were brought together with three or four stitches and plaster, a compress of lint was placed over them, covered with oiled silk, confined with a turn or two of the bandage, and the whole secured in Macintyre's splint. During the first week he suffered from irritative fever, but much less so than might have been anticipated. He took salines and aperients, &c., as required. There was very little oozing of blood after the first few hours, but synovia was discharged in considerable quantities. The treatment was persevered in, the wound being dressed still with dry lint under oiled silk, as often as necessary until about fourteen days, and the splint itself was of course re-applied. This was done continually until about seven weeks from the date of the accident, when it was discarded, and an inside wooden splint with a foot-piece substituted for it, and a bread poultice employed. At the expiration of another week this support was removed, the limb bandaged, (a pad of lint only, being used for dressing) and a stirrup of paste-board passed under the foot, and continued up either side of the leg. He now got up and walked about, aided with crutches, the foot being supported in a sling. Seven days after this time he began to try and accustom himself to bear slightly on the foot. He soon left off one crutch and used a stick. The wound was touched with sulphate of copper from time to time, and only covered with lint.

November 6th. He now walks with a crutch and stick, when going any distance, and walks well. The ankle is almost motionless as regards flexion and extension.

April 10th, 1848. Walks well with a stick, frequently without one; the limb is nearly an inch shorter than the opposite one. Flexion and extension movements of joint increase.—*Med. and Surg. Journal.*

Dislocation of the Head of the Femur on the Dorsum Ilii, in a child aged three years and a half.—Mr. Image, at the Provincial Medical Association, detailed the following rare and valuable case:

William Colley, aged three and a half years, of Ixworth, Suffolk, was admitted into the Suffolk Hospital, May 6th, 1847, with dislocation of the head of the femur on the dorsum ilii. The accident had occurred twelve days prior to his admission.

The accident appears to have been produced by his sister jumping upon his shoulders, from a step above that on which her brother was standing. When I first saw him the left great toe was resting on the instep of the opposite foot, and the knee crossing over the lower third of the right femur. The limb was an inch and three quarters shorter than the right. He was a remarkably fine healthy child. Soon after his admission reduction was attempted for a considerable time, but unsuccessfully, as we were not able to fix the knee-strap sufficiently tight to bear the long continued extension.

May 7th. Having obtained a proper sized knee-strap, and having nauseated our little patient with tartar emetic, and put him into a hot bath, we again applied the pullies, and after ten minutes succeeded in reducing the dislocation. The bone passed into its natural situation without the slightest jerk or sound. The limb now assumed exactly the same appearance as the other, the shortening being entirely removed. The thighs were kept tied together for a week, and on the 18th of May he walked out perfectly well.

I have ventured to lay the above case before the Society, in consequence of a charge having been urged against a neighbouring surgeon, of pretending to reduce a dislocation of the femur on the dorsum ilii, in a child only four years old, that child being a pauper and chargeable to the parish. It was agreed, and proved by authorities, that no such case was recorded, and therefore had not occurred, and that seven years' old was the earliest period at which this accident had taken place. On being referred to, I was rejoiced to have it in my power to lay before the proper authorities the above case, which was submitted to some leading surgeons in London, who admitted its perfect possibility, although it was considered to be a very rare occurrence.—*Ibid.*

On Constitutional Syphilis. By Mr. G. L. COOPER, of the Bloomsbury Dispensary.—Syphilis, in its secondary forms, or constitutionally considered, is the result of, or consequent upon, the absorption of a morbid poison into the circulation, reappearing in certain symptoms and parts, according to the stage of the disease. Its frequency every practical surgeon must admit, but the cause remains an undecided question. According to the opinions of some writers of indisputable reputation, its frequency is, in the majority, after the treatment of primary syphilis by a mercurial course; others, again, deny this point, on the principle of a non-eradication of the virus by an omission of that mineral. Now, according to my own experience, I most decidedly lean towards the latter, feeling persuaded that mercury is very requisite to accomplish a permanent cure of the true Hunterian chancre. Most surgeons are aware that ulcers of every character which may appear on the penis, or on any other part of the body, will oftentimes heal of their own accord, without any treatment whatever; but it is another thing to suppose the disease has been removed from the system; in numerous instances, both in private and public practice, the merits of these two methods of treatment have been tested by me, and I have found by observation that secondary symptoms do not so frequently follow a judicious course of mercury as when mere alteratives have been administered, neither are they increased in severity on appearing after a mercurial treatment. I am aware this statement has often been made, but it is not in accordance with my results, for these circumstances I should attribute either to an abuse, or to a neglect, of the necessary precautions whilst the patient is under its influence. A well-marked case, treated by me on the non-mercurial system, a short time ago came under my care, and as it bears well upon that subject, I shall select it out of many others. A gentleman, an artist by

profession, married, consulted me for a chancre on the prepuce, which, according to his statement, he had contracted from a woman who had sat for one of a group of nymphs; being overcome by her charms in a state of nudity, he was induced to overstep the path of rectitude, and, in the course of ten days after, discovered, much to his chagrin, this legacy of his amour. Being very desirous of avoiding suspicion in the mind of his wife, he particularly requested the iodide of potassium to be prescribed, fearing the mercurial odour might betray him. I accordingly conceded to his wish on his own responsibility; aided by a zinc lotion, the chancre speedily cicatrized. In the course of two months afterwards I was summoned to attend him for a deep excavated ulcer on the right tonsil, with copper-coloured scaly blotches over his body, arms, and face. Considering himself to be free from any chance of suspicion, he readily adopted whatever was recommended; accordingly, I put him under a gentle ptyalism, with rigid restrictions as to diet, and exposure to cold or damp. In a few weeks he was quite recovered, and attached much blame to his own folly. With reference to this subject, I consider the remarks made by Mr. B. Bell to be very just: he says that "a chancre might frequently be cured with external applications alone, and as we know from experience that the virus is not always absorbed, the cure would in a few instances prove permanent: but as we can never with certainty know whether this would happen or not, while in a great proportion of cases there would be reason to think that absorption would take place, we ought not in any case to trust to it." The reports which have issued from the army surgeons on the non-mercurial treatment of syphilis are undoubtedly most interesting, but daily experience convinces me that all ulcers appearing on the genitals are not of a syphilitic character, consequently not liable to be followed by any secondary symptoms; excoriations, herpetic eruptions, and even small ulcers, are frequently witnessed on these parts, often difficult to be distinguished from a true venereal sore; but these readily yield to a simple treatment, being merely the result of a depraved secretion.—*London Lancet*.

Reduction of a Dislocation forwards of the Inferior Surface of the Fifth Cervical Vertebra. By M. VRIGNOUMEAU.—The patient fell from a tree, on his head, and lost consciousness, which, however, returned in half an hour; he then complained of violent pain at the vertex and back of the neck; the author diagnosed—how, he does not say—a dislocation forwards of the inferior surface of the fifth cervical vertebra. He bled the man, and ordered absolute rest, but without avail; and forty hours subsequently—speech having become difficult, the face injected, the respiration stertorous, and the pulse almost imperceptible—he determined to give him the chance of an attempt at reduction. For this purpose the man was seated, two assistants pressing firmly, one on each shoulder, while M. V. gently extended the neck. Partial extension rendered the speech stronger, and respiration freer, and emboldened the operator to proceed further. When he thought the extension sufficient, he carried the head and superior part of the neck backwards; this manipulation

was followed by a snap, and from that moment the man recovered as by enchantment.—*Monthly Journal, from Journal de Connaiss. Medico-Chir.*

OBSTETRICS.

Hernia of the Uterus.—Hysterocele is stated by Mr. Bell, to occur under three forms:—1. Through the inguinal canal. 2. Through the crural ring. 3. Through a separation or rent in the abdominal walls.

Two cases of the latter are recorded by him.

1. Mrs. P., delivered of her fifth child eight days previously. When seen she was collapsed, with quick small pulse. She complained of intense pain in the abdomen; on examining which the uterus was found protruding through a rent in the linea alba. It was reduced, but the patient died. No inspection allowed.

2. In a female, confined for the fourth time, after the birth of the child the uterus was felt to have escaped through a rent in the linea alba, and containing another fœtus. The membranes were ruptured after reducing the uterus, and the second child was speedily born. This woman did well.

Cases of inguinal and crural hysterocele are narrated by Sennert, Lallemand, Chopart, and Thurat.

The treatment of ventral hysterocele, consists in reduction, bandaging, and the recumbent posture.—*Prov. Med. Surg. Journ. from Monthly Journal, July, 1848.*

Diseases of Women.—Displacements of the Uterus.—Dr. Bell, of Glasgow, writes a very interesting article on this subject in the *Monthly Journal of Medical Science.*—First:—As to *Retroversion* a condition, which he states to be of frequent occurrence; that parturition is a frequent cause, except in those cases which have not been pregnant. In these latter cases, enlarged uterus, or long-standing dysmenorrhœa, *particularly dysmenorrhœa*, always tends to produce enlargement, and thereby leads to abnormal positions. *Anteversion*, though esteemed by French writers as the most common affection of uterine displacements, yet Dr. Bell has seen but few cases. *Retroflexion*, doubted by many writers, Dr. Bell considers it of frequent occurrence. The causes of this and anteversion are pretty nearly the same as retroversion. Denman's account of the latter displacement is very correct. *Anteflexion* stands in the same relation to *antiversion* as *retroflexion* to *retroversion*. Treatment most judicious must be to restore the organ to its normal size and position. The mere restoring the position is not sufficient, for it will soon relapse, if the condition be not removed. Remove the congestion and hypertrophy, and the organ will resume its position. It is often impossible to restore its position, even temporarily, from its size. Dr. Bell, therefore, prefers removing congestion and inflammatory action before replacement. Judging from his own practice, Dr. Bell considers few cases require mechanical assistance. The

principal objects to be attended to in treatment are, recumbent position, regular state of the bowels, local depletion, mercurials, and lastly, mechanical treatment, by supports, pessaries, &c. Dr. Bell does not appear sanguine of the mechanical means, and has succeeded in effecting cures by medicine where mechanical means have failed. This valuable paper concludes with some interesting cases in favor of medical treatment.

Phlegmasia Alba Dolens—Death. Phlebitis with Obliteration of the Right Iliac Vein.—Louise Prevot, a servant, aged twenty-two entered the hospital under the care of M. Trousseau. She had been confined a month; her labour was very protracted, and it was necessary to apply the forceps in order to accomplish delivery. Five days afterwards she was seized with phlegmasia alba dolens, which was attended with fever, and the patient was obliged to keep her bed. At the time she entered the hospital there was œdematous tumefaction of the abdominal region on the right side. Pressure produced very severe pain at the posterior and superior part of the right leg. The abdomen was soft and inactive; fever intense; and depression considerable. Auscultation showed pneumonia of the right side through its whole extent, with pleuritic effusion at the inferior parts. Two bleedings were had recourse to; the blood was very firm. Ipecacuanha was administered, and a pectoral tisane.

Although, in addition to these means, a large blister was applied to the back, the disease made rapid progress. The pneumonia increased, and, with it, the depression and fever. The pulse became small, compressible, and very frequent. The adynamic condition of the patient was most marked; the skin became excoriated near the sacrum; the respiration embarrassed more and more; certain cerebral phenomena manifested themselves, and the patient died six days after her admission into the hospital.

The autopsy was made twenty hours after death. The right primitive iliac vein near its junction with the vena cava, the external iliac, the femoral, to within five or six centimètres of the crural arch, were completely obliterated. The femoral vein was pervious near the popliteal cavity. All the deep-seated veins of the right limb were obliterated. In the primitive iliac the obliteration was produced by a fibrinous mass, containing a notable quantity of a liquid, somewhat like pus, mixed with serum. The periphery of the stratum was composed of fibrinous matter to the extent of eight or ten centimètres, adherent to the neighbouring veins. At this point the veins were thickened and rigid, like that of a large artery, but without redness. Immediately beneath, a puriform liquid filled the vessel; and still lower, the obliteration was caused by a large clot, composed partly of fibrine and partly of blood. The clots in the deep vein of the leg were formed in the same way.

In the thorax there was purulent effusion on the right side. Pneumonia on the same side, with small purulent spots scattered throughout. There was also peri-pneumonia of both lungs. The abdominal vis-

cera were all healthy. No obliteration or any appreciable inflammation of the uterine cavity. No alteration of the internal surface of the uterus, or in the substance of the organ.—*Brit. Rec. of Obs. Med.*

Inflammation and Abscess of the Uterine Appendages. By Dr. BENNET.—The almost universal view of our profession, that this disease is all but characteristic of the puerperal state, and very rarely occurs under other circumstances, our author considers as very far, indeed, from the truth. The disease is not at all rare in the non-puerperal state, and is often confounded with acute or chronic metritis, iliac abscess, or some other pelvic lesion. In the puerperal form of this affection, and owing probably to the increased quantity of fibrin contained in the blood, there is a greater tendency to active inflammation. Hence, if the structures contained in the lateral ligaments are attacked with inflammation it has a tendency to spread to the peritoneal folds and the surrounding tissues, giving rise to the formation of large pelvic inflammatory tumours, abdominal adhesions, intestinal perforations, &c., often ending in death. In the non-puerperal inflammations the purulent collections are more limited; the inflammation seldom attacks the peritoneum, and the abscess generally disappears in a latent manner, bursting into the rectum or vagina.

The most frequent seat of this inflammation is the cellular tissue which separates the peritoneal folds and surrounds the ovaries, round ligaments, and Fallopian tubes. It may be produced by any cause which exaggerates the vitality of the uterine system. It may occur in connexion with ulcerative disease of the cervix, or from a severe fall.

The swelling to which it gives rise may often be felt above the pubes, but an accurate diagnosis can be made only by a vaginal examination. The whole may disappear by resolution, but more generally it ends by suppuration, and the discharge of pus by the rectum, vagina, bladder, or through the abdominal parietes.

The treatment of the acute stage is the same as in ordinary phlegmonous inflammation, only it requires to be more active. Bleeding, leeches, cathartics, and mercurials are the chief means to be resorted to. Dr. Bennet places most reliance on the repeated application of leeches to the abdominal parietes, immediately over the seat of inflammation. In the chronic stage, when the parts are not so tender as at first, the application of leeches internally is very useful.—*Lancet*, Feb. 5, 1848.

The Mucous Membrane of the Uterus after Parturition.—Various opinions prevail among accoucheurs relative to the state of the membrane lining the uterus after parturition; some maintaining that a certain amount of the mucous membrane is left; others, that shreds of the decidua remain; and others, again, that the internal surface of the organ presents, after delivery, the denuded muscular fibres. Most writers on the subject agree, however, that the decidua is neither mediately or immediately cast off, but Burdach and Müller are not at all

explicit on this question. Those accoucheurs who have principally derived their view from necroscopical appearances after puerperal fever, have described a sanious, putrilaginous, and pseudo-membranous layer, as forming the internal lining of the uterus after parturition. It would, however, appear, from the numerous and interesting investigations of Dr. Colin, mentioned in *L'Union Médicale*. 1. That in the normal state the internal surface of the uterus, after delivery, is not laid bare so as to expose the muscular fibres. 2. That even in cases of abortion there remains a vascular membranous layer. 3. That this latter is identical with the uterine layer of the decidua, and may therefore be looked upon as a mucous membrane of the uterus. 4. That this membrane is not entirely carried away by the lochia, whether the latter be sanguineous or purulent. 5. That a few particles previously detached may be cast off by the lochia, but that the part which is endowed with vitality remains. 6. That this latter part is the web upon which the reparatory process that is to re-constitute the uterine mucous membrane is conducted. 7. That the purulent and lactescent lochia, far from having upon that membrane the injurious effects which it is supposed to produce, are the simple results of the reparatory process. 8. That this membranous layer assumes all the characters of a mucous membrane towards the twentieth or thirtieth day after delivery. 9. That it is at first pulpy and thicker than in the normal state. And 10. That its elements gradually acquire more firmness, and that it resumes all its characters about the sixtieth or seventieth day after parturition.

The author had occasion, during the prevalence of puerperal fever at the Hôtel Dieu, in 1846, to examine twenty-two women who died of that disease. He generally observed the lining of the uterus very pulpy, and even slimy, or semi-fluid, towards the fundus of the organ; whilst towards the cervix it looked pseudo-membranous, vascular, and friable. When the alterations were more marked the coat lining the fundus, instead of being covered by a brown, pulpy substance, presented a greyish or greenish slough, and in some cases he even found the whole fundus quite denuded. The only symptom which Dr. Colin thinks indicative of the putrid softening of the uterine mucous layer is the fœtidity of the lochia. The total expulsion of the mucous membrane is not a constant phenomenon, when the patient recovers from puerperal fever; and it is an error, according to him, to suppose that the prominent disk, which gave insertion to the placenta, gets disorganized and expelled, at least, in the great majority of cases.